American Gas Association MONTHLY

Defense Takes the Spotlight

•

New National Gas Advertising

•

Making Shut-Offs with Grease

•

Air Conditioning—A Reality

•

Getting the Gas Market Facts

July-August 1941

VOLUME XXIII NUMBER 7

... The Biggest Campaign in the Industry!

1366 AWARDS — totalling $23,000.00 cash and U. S. Bonds—to Retail Salesmen.

35 TROPHIES to winning companies for the Best Annual Sales Performance.

35 HONOR TRIPS to Miami, with side trips to Nassau or Havana, to 35 winning companies.

12 HONOR TRIPS to Miami and Nassau or Havana to the two highest salesmen in each of Six Divisions.

Through this year's program on gas refrigeration, divided into four quarterly campaigns, gas companies and salesmen are offered *year-'round* means to cash in on the UNLIMITED OPPORTUNITY for *year-'round* sales of gas refrigerators.

By participating in the quarterly campaigns, companies and salesmen have the opportunity to make a contribution to the American Way of Life by bringing the advantages of Gas Refrigeration to more homes—and by providing additional revenue to meet the needs of national defense.

★ ★ ★

"The March of Progress" Campaign for Gas Refrigeration (October 1940-September 1941) is sponsored by the A. G. A. Gas Refrigeration Committee.

Refrigeration Committee

AMERICAN GAS ASSOCIATION

420 LEXINGTON AVENUE . . . . . NEW YORK, N. Y.

"FULL STEAM AHEAD" FOR THE 4th QUARTER

(July, August, September)

In the "MARCH OF PROGRESS" GAS REFRIGERATION CAMPAIGN

CASH AWARDS EACH MONTH!
103 awards in cash and U. S. Defense Bonds — totalling $1,230.00 to Gas Refrigerator Salesmen EVERY MONTH.

CASH AWARDS FOR QUARTER!
26 awards of U. S. Defense Bonds totalling $1,775.00 to Gas Refrigerator Salesmen for best 3 months' performance.

TOTAL CASH AWARDS FOR LAST QUARTER!
335 awards amounting to $5,465.00 in cash and bonds.

American Gas Association MONTHLY

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Just a year ago, the MONTHLY *announced the formation of the A. G. A. Committee on National Defense with a four-pronged program of marshalling the gas industry's resources to aid the government. Today, this foresighted action is bringing tangible results. Some of the highlights of the defense picture plus a comprehensive bibliography of defense material are presented in this issue. . . . With five fruitful years in back of it, the national advertising campaign has adopted an entirely new approach designed to bring greater readership of sales-pulling copy. . . . In the first of a series of three articles, Mr. Rohde asks us to establish correct temperatures for hot water based on Pasteur's principles and thus simultaneously to aid the public and the gas water heating business. . . . Important to national defense are quick, satisfactory methods of shutting off gas mains. Mr. Andersen describes the grease method which has aroused great interest. . . . "An exciting reality," Mr. Knighton calls residential gas air conditioning and proceeds to prove his point convincingly. . . . Hall Henry and his committee have rendered a signal service in presenting their remarkable study of market analyses.*

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American Gas Association Testing Laboratories
AMERGASLAB, CLEVELAND

An unusual view of the Cleveland plant for liquefying natural gas, photographed by A. I. Phillips, consulting gas engineer. This picture was awarded the July-August prize in the A. G. A. MONTHLY frontispiece contest.

American Gas Association MONTHLY

JAMES M. BEALL, *Editor*

DEFENSE-WISE
. . . . The Gas Industry in the National Crisis

WHEN General Marshall remarked recently, "This is a war of smokestacks," he wasn't giving a boost to the gas industry's competitors of the smoke-producing variety but was reducing the problem of the warring nations to its simplest form. This is a war of smokestacks. It is a war which, in the final analysis, the most highly geared, most efficient industrial machine will triumph. The gas industry, with its refined and adaptable fuel, is an indispensable part of that industrial machine. Realizing this, the industry's leaders have declared in no uncertain terms that the industry is ready to go "all out" for defense and will bend every effort to help build an invincible war machine.

★

The latest pledge of the full support of the gas industry to the government in the national defense emergency, made in a letter to President Roosevelt by Thomas J. Strickler, President, American Gas Association, dated June 17, brought the following response from F. H. LaGuardia, Mayor of New York City and U. S. Director of Civilian Defense:

"Plans for the defense of civilians in this country are now being formulated and when they reach the proper stage, the members of your industry will be called upon to do their part in the protection of life and property in the event of air raid attacks. No doubt, you have already given some thought and made some plans toward the possible mobilization of repair crews, strategic storage of reserve equipment and supplies, the installation of automatic shut-off valves, and other precautionary measures.

"I have forwarded a copy of your letter to Mr. Leland Olds, Chairman of the Federal Power Commission for attention to your offer to place the resources of this important industry at the disposal of the Government in the defense program."

Just a little over a year ago, on May 29, 1940, Walter C. Beckjord, then president of the American Gas Association, in a letter to the War Department had placed the services of the gas industry at the disposal of all government departments concerned with national defense.

★

Organized A. G. A. committees are making every effort to have a well-prepared program ready for any emergency. Already an extensive questionnaire, prepared by the Technical Section, covering all phases of the operating problems connected with the defense program has been sent out and approximately 70 per cent of the industry has replied. At every recent conference of the Association, national defense forums have been held and the industry's problems explored. The Committee on National Defense and cooperating sectional committees have gathered a large amount of material at Association headquarters containing the experience of countries at war as well as carefully thought out programs originating here. In this issue, a comprehensive bibliography of this material is presented by the Technical Section.

★

Defense priorities during 1941 have raised a number of problems for public utilities and many companies are taking steps to see that proper supplies of essential materials are available. Forms to be filled out by gas companies or other applicants for preference rating may be secured from the Director of Priorities, Office of Production Management, Washington, D. C. In the appliance field there has been some talk of curtailment by manufacturers unable to get necessary raw materials but, according to the latest information, there is little likelihood of a shortage this year. It is estimated that sales of modern gas ranges for this year will far exceed the 1940 total of 1,743,000 units which topped the former peak year of 1929 by one and one-half million units.

Manufacturers of gas ranges report that despite factory expansion to meet last year's stepped-up production and the expectation that 1941 will show a record high in

sales, they are obliged to work extra shifts to fill on schedule the volume of orders that are now pouring in as a result of the consumer rush to buy. Should any future shortage of materials limit production of gas ranges during the remaining months of this year, the output still may be ahead of that of any previous year. Of the nation's 34,772,673 occupied dwellings, 17,500,000 are equipped with gas ranges, the number steadily increasing each year. New models of gas ranges for 1942 will be fewer in number and will be limited to basic models in definite price levels.

★

Housing for Defense Workers is a subject of vital concern to the gas industry and offers a fine opportunity for the sale of its services. In this connection, A. C. Bredahl, of the United States Housing Authority, speaking before a recent symposium of the New England Gas Association, said: "In defense housing, the greatest emphasis is being put upon speed of construction. . . . There is a demand from Army and Navy officials, from manufacturers of defense materials, and from local governments for some 200,000 new homes immediately. There is no cause for repeating the mistakes and delays of a quarter of a century ago. Many of the new houses now needed will, of course, be produced by private industry—the government will do everything possible to lend private industry a helping hand. However, where private industry cannot provide needed housing, it is necessary that the government itself do the job. No projects will be undertaken by the government unless the President determines that there is an acute shortage which impedes the national defense program and that the housing cannot be provided by private industry."

★

Oil requirements of manufactured gas companies were placed in the spotlight on June 19 when President Strickler presented the following statement to Ralph K. Davies, Deputy Petroleum Coordinator for National Defense:

"During the year 1939, the last year for which complete statistics are available, the manufactured gas industry had a total output of 242,863,000,000 cubic feet. Of this total 156,969,000,000 cubic feet were of water gas and 5,857,000,000 cubic feet of oil gas. These are, respectively, 64.6 and 2.4 per cent of the total manufactured gases above referred to. This water gas production and distribution, mainly confined to the Atlantic Seaboard States and the Pacific Northwest, is dependent upon fuel oil. There is no possible substitute for fuel oil and any statement to the contrary is in error.

"Seventeen states, fifteen Eastern Seaboard and two in the Northwest, used 211,512,000 barrels of fuel oil (1939) approximately 45% of the total United States requirements for fuel oil used. Of these the gas industry used only 5.3 per cent of the total light oil and 7.1% of the heavy oil.

"Production and distribution of water gas in all of the states where it is made is used for cooking, water heating, space heating, and in many cases for house heating and refrigeration. "The companies supplying these states with gas furnish service to a population of thirty-three million people of which approximately seven million are actual customers. For them, in many cases, there is no other source of fuel.

"In 1939 it required 14,978,000 barrels of light and heavy oil, which was only 3.2 per cent of the national production of fuel oil used in the United States. We are introducing tables showing amounts and kinds of oil used by the manufactured gas industry for various purposes.

"Not only is gas a necessity at all times but especially so in periods of national emergency when unusual demands are being made upon many of our companies in defense housing and the demands of persons who have been re-employed on defense and related projects. The American Gas Association requests the Petroleum Coordinator to take the necessary action that will insure an adequate supply of fuel oil for the production of water gas and oil gas in these areas. It is a matter of life or death."

★

The War Department's National Technological Civil Protection Committee, on which W. Cullen Morris, vice-president of the Consolidated Edison Co. of New York, Inc., is the A. G. A.'s representative, has issued a series of pamphlets and periodicals giving the latest direct information available on the protection of gas company plants and other defense topics. A recent bulletin distributed to the gas industry by Association headquarters entitled "Additional Information on Protection of City Gas Works and Distribution Systems in England" includes briefly: "The Gas Grid as a Protective Measure," "Protection of Works Plant," "Gas Holders," "Mains," "Observers and Fitters," and "Central Organization."

★

Effect of Defense on Merchandising is set forth in an article by W. D. Gay, manager, utility department, Standard & Poor's Corporation, in the June 5 issue of **Public Utilities Fortnightly** entitled "What Will the Defense Program Do to Utility Merchandising?" which states that national defense priorities may eventually require drastic changes in appliance merchandising policies of electric power companies with residential peak loads and may prove beneficial to gas appliance sales. In this respect, Mr. Gay says in part:

"For while the ill wind will blow particularly hard on the appliance merchandising campaigns of electric utilities in the future, it may prove beneficial to the artificial gas business. With the important exception of a few companies serving industrial areas that are now growing rapidly, most artificial gas companies have considerable surplus production capacity. Hence, dual service companies which may in the future find it impossible or unwise to promote electric appliance sales aggressively would do well to concentrate on their gas appliance sales.

"Another possible beneficiary from the ill wind is the natural gas industry. For the threatened shortage in railroad freight cars, typical of war periods with priorities on

all military freight, should stimulate the construction of natural gas pipe lines. As a cheap industrial fuel free from bottlenecks, natural gas is truly an ideal wartime commodity and should give our country a definite military advantage over other countries which lack our tremendous reserves of natural gas.

"While the steel industry is in a serious production jam, it has not yet been forced to set priorities on skelp and plate for manufacturing steel pipe for natural gas pipe lines. Even if such priorities are eventually established, gas pipe lines should be well up on the priority list."

★

Plant expansion problems now facing many companies because of the increased demand of national defense industries call for long-term planning of the most careful kind. Professor Clyde O. Ruggles, of the Graduate School of Business Administration, Harvard University, emphasized some of the problems in a recent address. He said:

"It is a matter of prime importance that the public utilities should not be called upon to expand their facilities to serve national defense needs without adequate provision for the amortization of such expanded plants. This is a more serious problem for the utilities than it is for competitive industries, because the ratio of capital invested to annual revenue is much higher for the utilities.

"The government has already recognized that it must carry the economic risk involved when it calls upon an industry to build a plant to serve defense needs. But in most instances the government is not making contracts directly with the utilities. Hence the risk involved in expanding public utility plants made to serve the industries taking war contracts must be recognized by the state public utility commissions if an injustice is not to be done both to public utility stockholders and public utility customers."

Prof. Ruggles declared that "the burden of national defense should be borne by taxpayers and not by public utility rate payers. It has taken several centuries for the world to evolve the theory of taxation which is now accepted as sound, that men should pay taxes in accordance with their ability to pay. It is a violation of this principle of taxation to call upon the rate payers of a public utility to absorb the final burden which is involved in the expansion of public utility facilities to serve national defense needs.

"The extension of public utility facilities will be made to serve large industries taking war orders. Yet these very customers may be able to shift the burden of such expansion back on to the public utility in the post war period, because they may be able to install their own power plants if it is an electric company, or at least be able to secure some substitute service for that of the public utility service."

Full page cartoon in the London Gas World, *May 3, which directs attention to the A. G. A.'s national defense contributions*

★

Impact of War on the gas industry's operations, sales and future will be unpredictable but cannot alter the industry's progress, Alexander Forward, managing director of the American Gas Association, told the Michigan Gas Association on July 1. "It is my conviction," he said, "that so far we have practically no conception of the changes impending in the lives of all of us as a result of this conflict. I am not talking now of taxes, certain as death, but of the human factors and the physical factors and the psychologic factors that will be brought into play.

"The gas industry has demonstrated over a period of years its essentiality, its basic soundness, its elasticity, its fortitude and its patriotism. We shall not fail in this hour when all these qualities are called upon. When peace comes, we shall have built upon a foundation of stamina and earnest purpose that will serve us well in the postwar period of readjustment, when the sun shines again."

Institute of Gas Technology Established

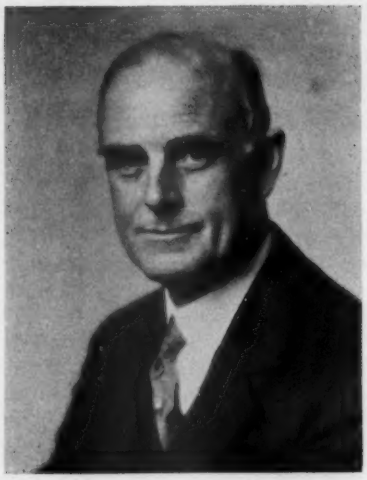
Two years of intensive work on the part of many leading gas utility executives under the leadership of Frank C. Smith, president, Houston Natural Gas Corporation, Houston, Texas, has led to the establishment of the Institute of Gas Technology, a non-profit educational and research organization. This new institute is an affiliate of the Illinois Institute of Technology, Chicago, an institution recently formed by the merger of the famous Armour Institute and Lewis Institute.

The Institute of Gas Technology was incorporated on June 3, 1941, under the laws of Illinois. Its purpose is to provide an educational institute of the gas industry wherein fundamental and applied research can be conducted; carefully selected technical school graduates can be educated through research work and special courses of interest and value to the gas industry; research can be stimulated in the industry; a scientific and technical library of books, periodicals, papers and articles of value to the gas industry can be collected; and gas industry research projects can be better coordinated as to past and current investigations, placement of such projects and useful advice given on related matters.

Member companies of the Institute of Gas Technology will include both gas companies and appliance and equipment manufacturers. Management of the institute will be vested in a board of trustees selected by the subscribing member companies.

First public proposal of the establishment of gas research institute was made in an address by Mr. Smith at the 1939 A. G. A. Convention in New York which was printed in full in the November issue of the A. G. A. MONTHLY that year. Subsequently the Research Institute Organization Group was formed with Mr. Smith as chairman and preliminary work leading to the organization of the Institute was completed.

Nominating Committee Reports for 1941-1942



George S. Hawley

To Members of the American Gas Association:

IN compliance with Section 2 of Article II of the by-laws of the American Gas Association, announcement is hereby made to the membership of the following report of the General Nominating Committee which will be presented to the annual convention in Atlantic City in October, 1941:

For President—George S. Hawley, President, The Bridgeport Gas Light Company, Bridgeport, Conn.

For First Vice-President—A. F. Bridge, Vice-President and General Manager, Southern Counties Gas Company, Los Angeles, California.

For Treasurer—Ernest R. Acker, President, Central Hudson Gas and Electric Corporation, Poughkeepsie, New York.

For Directors—2-year terms: Walter C. Beckjord, Vice-President and General Manager, Columbia Gas & Electric Corporation, New York.

C. M. Cohn, Executive Vice-President, Consolidated Gas Electric Light & Power Company, Baltimore, Maryland.

Watson E. Derwent, Vice-President, Geo. D. Roper Corp., Rockford, Ill.

H. L. Dickerson, Director, Ebasco Services Inc., New York.

Ralph L. Fletcher, Vice-President, Providence Gas Co., Providence, R. I.

R. H. Hargrove, Vice-President and General Manager, United Gas Pipe Line Company, Shreveport, La.

D. A. Hulcy, President, Lone Star Gas Corporation, Dallas, Texas.

Bruno Rahn, President, Milwaukee Gas Light Company, Milwaukee, Wisconsin.

Louis Ruthenburg, President, Servel, Inc., Evansville, Ind.

E. J. Tucker, General Manager and Secretary, Consumers Gas Co. of Toronto, Toronto, Ontario.

A. F. Bridge

Ernest R. Acker

H. Carl Wolf, President, Atlanta Gas Light Company, Atlanta, Georgia.

Respectfully submitted,

IRVING K. PECK,
Chairman

N. B. BERTOLETTE
JOSEPH BOWES
W. G. HAGAN
H. L. MASSER
MABON P. ROPER
General Nominating Committee

The following have been nominated by section nominating committes to serve as section officers for the next Association year:

Accounting Section: For Chairman—Lyman L. Dyer, Lone Star Gas Company, Dallas, Texas. For Vice-Chairman—Herman L. Gruehn, Consolidated Gas Electric Light & Power Company, Baltimore, Maryland.

Industrial and Commercial Gas Section: For Chairman—George F. B. Owens, The Brooklyn Union Gas Company, Brooklyn, New York. For Vice-Chairman—B. H. Gardner, Columbia Engineering Corp., Columbus, Ohio.

Lyman L. Dyer

George F. B. Owens

John A. Robertshaw

J. French Robinson

E. J. Boyer

Harold L. Gaidry

Walter C. Beckjord

C. M. Cohn

Watson E. Derwent

H. L. Dickerson

Ralph L. Fletcher

R. H. Hargrove

D. A. Hulcy

Bruno Rahn

Louis Ruthenburg

E. J. Tucker

H. Carl Wolf

Manufacturers Section: For Chairman—John A. Robertshaw, Robertshaw Thermostat Company, Youngwood, Pa.

Natural Gas Section: For Chairman—J. French Robinson, The East Ohio Gas Company, Cleveland, Ohio. For Vice-Chairman—B. R. Bay, Northern Natural Gas Company, Omaha, Nebraska.

Publicity & Advertising: For Chairman—Charles A. Tattersall, Niagara Hudson Power Corporation, New York.

Residential Section: For Chairman—E. J. Boyer, Minneapolis Gas Light Co., Minneapolis, Minnesota. For Vice-Chairman—(nomination to be announced).

Technical Section: For Chairman—Harold L. Gaidry, New Orleans Public Service Inc., New Orleans, La.

Natural Gas Reserves to Play Large Part in National Defense Efforts

TOO many Americans are naively unaware of the "softening up" process being used by subversive interests to undermine the American way of life and something should be done about it, E. Holley Poe, secretary of the A. G. A. Natural Gas Section, declared June 20 at the convention of the Kentucky Oil & Gas Association. Stating that our greatest dangers are internal and are accentuated by certain influences which spread suspicion among our people, Mr. Poe recommended that appropriate methods be used to correct this situation.

Commenting on the ability of the natural gas industry to do its full part in meeting the exacting requirements of the defense program, he said the nation's natural gas reserves are conservatively estimated to be 85 trillion cubic feet. "Through proration and practical conservation methods," he stated, "these reserves are being developed and produced so that supply will meet demand." He said there is in operation today 84,700 miles of natural gas trunk lines, ready to deliver gas fuel to strategic points of the nation in aid of a peace-time defense program without greatly impairing service to normal markets.

"Under the recently declared national emergency and with an increased tempo in the defense program," Mr. Poe declared, "there doubtless will be a necessity for the building of new natural gas pipe lines to augment delivery to certain areas of the nation. Excepting inhibiting priorities these can be built as rapidly as needed."

He emphasized the fact that the gas industry is in a particularly strong position to meet national defense needs and that its part in this program will be increasingly important.

"We are preparing the way for amazing new uses of natural gas, many of which we shall see in our own time," he predicted. "The present by-products of the industry include toluol, used in the manufacture of high explosives, carbon black and scores of other essential chemicals. If our imports of natural rubber cease, the entire rubber needs of this country can be supplied from synthetic rubber made from petroleum hydrocarbons. And this product will be better than natural rubber.

"New and startling uses of natural gas are being envisioned by our engineers and chemists. These uses will make living easier, they will reclaim products which had been passed by as worthless, and they will aid those sections of our country which are in need of strength to become revitalized through a new direction of their own potentialities. Increasing utilization of natural gas in the future will play a leading role in the creation of new work, the cultivation of new land, the fashioning of new tools, the construction of more beautiful buildings and in countless new fields which will call for increased employment of American labor."

The Wife's side . . .

"I'M THE ONE
that's going to use this
range—so
it's got to be fast!
I'm too busy to wait
around for the kettle
to boil—or the oven
to warm up—
Yes!
I want the instant high
heat and the cleanness
of Gas—
the flexibility
of Gas
that gives me any
degree of heat I need.
I want all the wonderful
new time-saving
and
work-saving features
I'd get on a modern
Gas range—
click simmer burners . . .
oven heat control . . .
a "smokeless" broiler
lots of storage space . .
automatic lighting . . .
Oh!
and dozens more!
Golly!
bet I'd be a
better cook, too—
if I had a marvelous
new Gas range!"

The Husband's side . . .

"I'M THE ONE
that's going to pay the
bills for
food and fuel—so
the economy
and efficiency
of Gas
make sense to me!
I want a range
that will last for years
and won't need
costly replacements—
that means a Gas
range too!
And
I want one that's
as good looking and
up-to-the-minute
in its way as my new
car—
One we'll be proud
to show
our friends—
like the beauty I saw
in a store window
just this
morning!
Yes!
guess it would be
smart
to take Mary
downtown and have
her pick one out
tomorrow!"

GAS—

THE WONDER FUEL FOR COOKING

Show your husband (or wife!) the new Gas ranges at your Gas Appliance Dealer's or Gas Company. The many exclusive advantages of modern Gas service have been made possible by the Gas utilities of America which, through their laboratories and other agencies, are constantly improving their service to you.

AMERICAN GAS ASSOCIATION

CP

THIS SEAL certifies that the Gas range carrying it meets all the 22 super-performance standards established by the Gas industry. It stands for the "certified performance" of the range you buy—regardless of the make of the range. Today 24 of America's leading range manufacturers offer CP (certified performance) models. Look for the CP seal when you buy.

LET GAS DO THE BIG JOBS—COOKING • WATER HEATING • REFRIGERATION • HOUSE HEATING

The Sixth Year . . . *New Plans for the A. G. A. National Advertising Campaign*

Thomas J. Strickler

By THOMAS J. STRICKLER

Chairman, Committee on National Advertising

PLANS for the sixth continuous year of gas industry national advertising "to promote public acceptance of gas as a modern, efficient fuel for household, industrial and commercial purposes for which heat is required," were approved May 21 by the Association's Committee on National Advertising. The following day the Association's Executive Board also approved the plans.

Backbone of Promotional Efforts

The new campaign covers the period July 1, 1941-June 30, 1942, and embraces advertising promoting gas fuel and modern gas appliances and equipment in the domestic as well as the industrial and commercial fields. Magazines whose circulations closely parallel the distribution of gas meters throughout the nation constitute the backbone of the domestic campaign, whereas trade papers having extensive circulation coverage of nine key American industries will be used for industrial and commercial gas advertising.

It is generally admitted, I believe, that the gas industry's national advertising program has been successful within the limits of the money made available for it. This campaign was initiated in 1936 to accomplish certain long-term objectives, and there is ample testimony on hand to demonstrate that conditions within the gas industry today show a marked improvement over those of 1936.

Memory is notoriously short and it is well for us to recall that public attitude toward the future of the gas industry as revealed by surveys in 1934, 1935 and 1936 was rapidly veering to the belief that gas fuel was out-moded as a source of energy, particularly for cooking. Today it is generally recognized that the national advertising program arrived just in time to change the direction of public thinking, to put gas fuel and strictly modern gas appliances once more in the spotlight and, most important of all, to give renewed encouragement to gas men in every community, large or small, wherever magazines that influence the lives and habits of American families are read.

Those of us who have assumed the responsibility of conducting the program have checked up on its progress by means of consumer surveys. In the Spring of 1937, a few months after the first national advertisements had appeared, a survey was made for the purpose of developing information regarding the attitude of American housewives as regards gas and electric ranges. This survey helped us materially in formulating our advertising copy.

Surveys Show Gas Progress

Late in 1940, the second national survey was conducted for the dual purpose of appraising the extent to which the national advertising program had been successful in winning greater public acceptance of gas, and in creating a more favorable opinion on the part of housewives toward the merits of gas versus electricity for cooking. In other words, when we compared the results of the 1937 and 1940 surveys, we had the basis for an accurate appraisal of progress.

The two surveys were exactly par-

MAGAZINE SCHEDULE, 1941-42 DOMESTIC GAS ADVERTISING

	1941						1942				
	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
Life	22	20	17		19		23	20	18	22		
	BJ	R	R		BJ		R	BJ	R	R		
Good Housekeeping		R			R		R		R		R	
Ladies' Home Journal		R	R			R		R			R	
McCall's		R		R			R		R			R
Woman's Home Companion		R	R			R		R		R		
Better Homes & Gardens		BJ		R		BJ		BJ		R		
Architectural Forum		X	X				X		X	X	X	
American Builder	X		X			X		X	X		X	
Journal of Home Economics	X	X			X	X						
Gas Appliance Merchandising	X			X			X			X		

R = Range ads, four colors. BJ = Big Job ads, four colors. X = Trade ads, black and white.

allel; both were made in territories served by gas and by electricity. The same number of personal interviews were held in the same communities. In both surveys the interviews were distributed on the same basis with respect to the number made in each income group. Both surveys were conducted in forty-eight cities of varying sizes, distributed in all the major geographical sections of the country.

Our advertising counsel, McCann-Erickson, Inc., planned both surveys, had them carried out by one of the largest independent research organizations in the country. The findings are entirely impartial. The field interviewers did not even know in whose interest the surveys were being made. One of the questions asked was, "If you were to buy a new range, what kind would you buy, gas or electric?" In 1937 those who would choose a gas range amounted to 69.5% of the total; in 1940, the percentage increased to 73.9% of the total. While this gain is not spectacular it is definitely favorable and, we feel, somewhat more significant than these comparative figures themselves indicate, as it reflects a reversal of trend in public opinion and a swing toward gas.

To secure a public vote on the merits of gas versus electric ranges, the following question was asked: "Regardless of what kind of range you have used, which do you feel offers you the most?" Fourteen points were then listed, such as speed, top burner cooking, automatic features, freedom from repairs, etc., etc. The 1940 survey shows an encouraging increase in the opinion favorable to gas as compared with the 1937 survey. For example, 64.6% of those interviewed in 1940 considered gas superior to electricity in speed, as against 56.3% who held this opinion in 1937. And so on, point by point, the comparison of the findings of these two surveys shows an improved attitude toward gas on each of the 14 points considered. Electric cooking, it develops, has lost in public favor on each of the 14 points.

In 1937, gas was favored over electricity on eight of the 14 points; in 1940 gas was favored over electricity on 11 points. Conversely, in 1937 American women favored electric cooking on six points, while in 1940 there were only three points on which they favored electric cooking over gas. Even here the percentages favorable to electricity have been reduced considerably. For instance, those favorable to electric cooking on the score of cleanliness have dropped from 64.8% of those interviewed in 1937 to 55.1% of those interviewed in 1940.

It is not necessary to report in detail on all 14 features covered in the surveys, although it is interesting to note that gas shows a gain on all these features, ranging from 16.2 percentage points gained on "automatic features" down to 7.7 percentage points gained on "freedom from repairs."

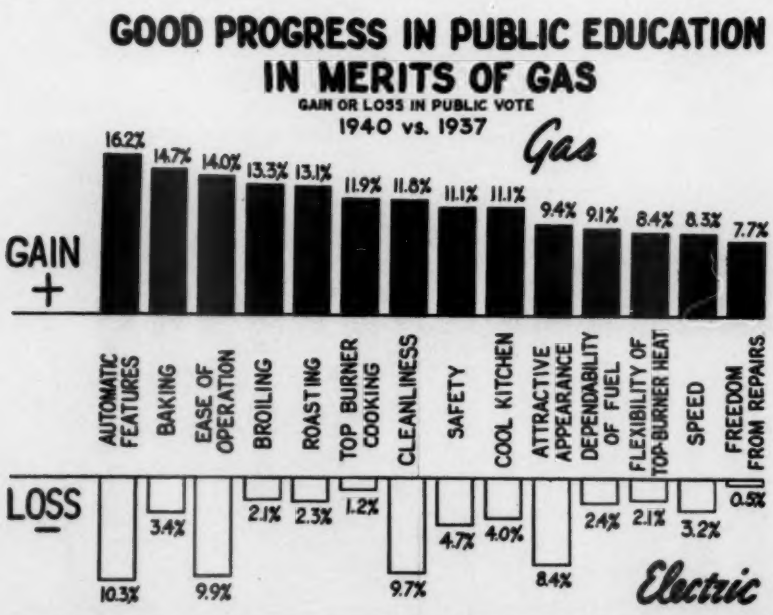
Conversely, electric cooking shows a loss in housewives' appreciation on all 14 features, ranging from 10.3 percentage points lost on "automatic features" to one-half a percentage point lost on "freedom from repairs." All of these features—although in varying degrees—have been stressed in the national advertising campaign. It is enough for us to know that these comparative surveys establish the point that good progress has been made in educating the public on the principal merits of gas as a cooking fuel as well as the improved operating features of modern gas ranges, including Certified Performance models.

CONSUMER MAGAZINES

Publication	*Circulation*
Life	3,250,000
Good Housekeeping	2,500,000
Ladies' Home Journal	3,850,000
McCall's	3,400,000
Woman's Home Companion	3,650,000
Better Homes & Gardens	2,350,000
	19,000,000

TRADE MAGAZINES

Architectural Forum	37,378
American Builder & Building Age	69,629
Journal of Home Economics	10,695
Gas Appliance Merchandising	6,599
	124,301



Four-Color Ads Continue

In planning the series of consumer advertisements for the coming year we have adhered to the belief that the best results can be accomplished by using full page advertisements in full color. Although four-color advertising costs more per unit than black and white, it is our conviction that in the long run it is more economical.

It has been our practice to make consumer checks for the purpose of learning to what extent the various magazine advertising campaigns are observed and read by the public. An investigation by an outside research organization shows that the current year's A. G. A. campaign has received good observation ratings. All magazine ad-

vertising in the field of cooking appliances (gas, electric and oil) secured observation at a cost of approximately $10 per thousand. Our 1940-41 campaign has been securing observation at $7.50 per thousand—or at 25% less cost than the average for this field of advertising. The ratings covering readership of the advertising are not so favorable. We hope to correct this condition in the advertisements to be used during the coming year.

Elsewhere there is reproduced one of the key advertisements in the new series. Here are some of its outstanding features:

1. An attractively decorated and practically designed gas kitchen is the main illustration. This we know to be of great interest to women. You will note there is plenty of emphasis in the illustration on the modern CP gas range.

2. Human interest is played up in the illustrations at the top and base of the ad as well as in the main picture—a device which we feel livens up the ad all the way through. This use of pictures, as well as the interesting approach in the main headline, helps to gain full readership of the text matter.

3. The text matter is brief, yet packed full of selling argument for gas and gas appliances, written in terms of the reader's own interest. The text is set up in a distinctive style for easy reading.

4. Double selling appeal is a feature of the layout and text matter—the "wife's side" of the case and the "husband's side." The purchase of a gas appliance is usually a matter in which both sides of the family have a voice.

5. Bold display of the word "gas" is included in each ad along with the slogan, "Gas, the Wonder Fuel for Cooking."

6. The CP seal is well displayed, along with a paragraph of text explaining and selling the CP range idea.

7. The base-line slogan reads "Let Gas Do the Big Jobs—Cooking, Water Heating, Refrigeration and House Heating." Previously this slogan has been "Let Gas Do the Four Big Jobs," etc. The new version does not limit the number of uses of gas. Air conditioning is certainly an important fifth big job.

The advertisement just described is one of a series of five which place the main emphasis on gas cooking and modern gas ranges. There are three additional color advertisements in our new campaign dealing with the "big jobs" theme—i.e., water heating, house heating, and refrigeration as well as cooking. These are scheduled to appear in *Life* and *Better Homes & Gardens*. The general layout style and copy approach of the "big job" series are similar to the cooking series and provide good continuity of appearance between the two divisions of the campaign.

Full-Text Readership Aim

There is a particular point about the new copy which deserves special mention. We feel it is most important to design the advertising so as to obtain a maximum full-text readership. While the pictures, captions and slogans go a long way toward telling the story and creating a favorable impression, the "reason-why" selling arguments for gas and gas appliances as stated in the text matter are, after all, vitally important to get across to the reader. They carry the prospect farther towards the actual purchase of a new appliance than pictures and captions alone can do.

It is with this thought in mind that we have designed the new advertising to win a high full-text readership. The human interest characters depicted at the top of the ad, in the main drawing and again at the base of the ad, suggest a story-like continuity which we know from experience promotes readership. The "incomplete thought" school of headline has been used in these advertisements for the same reason. This device piques the reader's curiosity and promotes full readership of the message. Finally, the type itself has been set in an uncrowded style—another simple but effective device to gain readership. We believe this new advertising embodies colorful attractiveness, modernity, reader interest, simplicity of arrangement for easy reading, and strength in the sales arguments for gas and modern gas appliances.

During the five years of the program more than 480,000,000 advertising messages have appeared in national media.

Here is a very brief summary of some of the effective results of the magazine program:

1. The building of further prestige and consumer acceptance for gas and modern gas appliances.
2. A highly increased magazine editorial activity on the subject of gas and gas appliances.
3. Reprints of gas cookery and gas appliance articles in newspapers.
4. Distribution by magazines to their readers of thousands of booklets on the merits of gas cooking.

In considering the use of media for 1941-42 we have made one major change in the magazine list. That change is the substitution of *Life* for the *Saturday Evening Post*. We regret, of course, that available funds will permit the use of only one of these strong

"Just like a man!"

"Can you imagine anyone buying a new range because it looks pretty? Or has signal-simmer burners . . . a barbecue broiler . . . oven heat control . . . a giant top burner . . . lots of storage space? Well— that's my wife! When she saw all those new contrivances on modern Gas ranges there was no holding her! Never mind about the solid virtues of Gas— its efficiency and economy— the dependability of Gas service— the fact that Gas ranges don't get out of order—or need costly replacements— Well—that's like a woman!"

national weeklies and still provide the funds necessary to carry on the schedules in the all-important women's service and home service magazines. But such is the case and careful study and analysis have led us to select *Life* as the spear-head of the campaign in the weekly magazine field.

Life is an outstanding publishing success and this is due in large measure to the fact that its editorial presentation is in tune with the times. It has devised a formula for presenting all angles of the "world today" in a photographic form which produces high reader-interest. Complete news, graphically presented for fast consumption, is the order of the day.

Other facts about *Life* which led to its selection are: Last year the American public paid more money for *Life* than for any other single magazine published—a total of $13,500,000. It is first among all magazines in the volume of food and food-beverage advertising. It is first in the weekly field in the number of pages of house furnishings and kitchen equipment advertising.

We are continuing the use of the four leading women's service magazines—*Woman's Home Companion, McCall's, Good Housekeeping* and *Ladies' Home Journal*. These magazines, now reaching over 12,000,000 women monthly, have been the backbone of the program. Each one of them is at an all-time high in circulation. They are continuing to publish authoritative editorial articles on gas and gas appliances. They influence the constant promotion of gas appliances in retail outlets.

We are also continuing the use of the leading magazine in the home service field, *Better Homes & Gardens*. This magazine reaches over 2,300,000 home owners and prospective home owners. Its editorial background deals with home building, home furnishing, home remodeling and home economics. Its readers' interest in cooking is indicated by the sale to date of nearly 1,500,000 B. H. & G. Cook Books. Furthermore, it has published excellent editorial features on gas and gas appliances.

After careful consideration it has been deemed advisable to drop *True Story Magazine* rather than curtail the schedules in any of the other publications which have carried the advertising so effectively during the past years. The saving effected by this elimination is sufficient to keep the budget within the limits of available funds.

Publication Schedule

The publication schedule for 1941-42 calls for eight insertions in *Life* and five each in the five other magazines, each advertisement being in full-page size in four colors.

Certain economies fortunately make it possible for us to increase our advertising in the trade magazines. The new year will find us appearing in six issues of the *Architectural Forum*, and the *American Builder and Building Age*, the two leading publications serving the architect and building fields. Also scheduled are four pages in the *Journal of Home Economics*, the official organ of the American Home Economics Association, and four pages in *Gas Appliance Merchandising*. All advertising in the trade magazines will be done in black and white, full pages being used. The complete list of media selected to carry the domestic gas advertising, including circulation figures, appears elsewhere.

Publicity Returns

One of the most important and result-producing activities carried on in connection with the campaign is the preparation and placing in the daily newspapers and principal consumer magazines of articles definitely favorable to the use of gas fuel and modern gas appliances. Despite the preponderance of war news in the daily press, publicity returns on the campaign have been steadily maintained throughout the five years. In all, more than 29,000 separate newspaper clippings of publicity material have been collected, representing more than four million lines of space appearing in newspapers having an aggregate circulation of 278,000,000 copies. This total does not include publicity returns which have resulted indirectly from our activities.

This substantial total of newspaper publicity is backed up by an equally impressive publicity showing in national magazines. Prior to the inauguration of the advertising campaign in 1936, the consumer magazines of large circulation were practically ignoring the gas industry and its products. In the last five years this situation has been reversed. During that period national magazines have published 111 different editorial articles, most of them elaborately illustrated, reflecting favorably upon gas and gas appliances. The total circulation of these magazines has been 189,000,000 readers.

A third field of publicity activity centers around the preparation and distribution of scripts to radio stations. These scripts are issued to stations who report to us by post card the hour and date each script is used. During the five years of national advertising 1,430 post cards have been received from these stations. This script service, dealing with home making, cooking, home economics and similar topics, will continue to be a component part of the publicity activities for 1941-42.

Sales promotion activities during the coming advertising year will not be radically different from those used in the past. Several issues of a tabloid newspaper will be substituted for more expensive portfolios, and the items offered for local tie-in will be reprints of ads, photographs and counter and display cards.

Industrial and Commercial Advertising

The fields covered today by industrial and commercial gas advertising are those which represent the greatest actual and potential use of gas. For example, the metals industry represents

the largest single use of gas for industrial purposes. Food and kindred products, including baking and food processing, represent the fifth largest use of gas; ceramics is the fourth largest, and the processing industries, chiefly chemicals and allied products, represent the third largest. The second largest use of gas is the classification of products of petroleum and coal. Much of the gas used in this classification is used by the oil and gas industry itself, and the reason for not covering this field with advertising is therefore obvious.

Hotels, restaurants and cafeterias represent the largest single use of commercial gas. The chain store use of gas for counter cooking is important, and is growing rapidly; and gas for cooking and other applications in the hospital field is also important and is definitely worth promoting vigorously.

The final classification—general manufacturing—covers manufacturing plants generally in a wide variety of fields—a broad horizontal classification, including all of the specific fields mentioned previously and of course a great many others.

The specific fields to which the industrial and commercial gas advertising is directed are of course only a few of the many in which the gas industry is interested. There are many others which are definitely worth cultivating and expanding, such as schools, the printing industry, commercial laundries, breweries and distilleries, the textile industry, industrial and commercial air conditioning, the packing industry, and many others. But it has always been the policy of the Advertising Committee of the Industrial and Commercial Gas Section to concentrate on a few important fields, and to do a fairly consistent and substantial job in a few fields rather than to attempt to scatter efforts too sketchily over a larger number of fields.

Elsewhere appears a schedule of industrial and commercial gas advertising for the current year, showing the fields covered, the publications used and the number of pages in each publication. Ketchum, Macleod and Grove, Inc., of Pittsburgh, serves as advertising counsel.

As the table indicates, we are reaching 9 separate fields of industrial and commercial uses of gas, using 16 different publications, with a total of 164 separate advertisements. The total number of advertising impressions is 3,357,426, and the cost per impression is 1.4c. While circulations of the publications on our list do not compare with those of mass consumer publications, the cost per impression is very low, considering the specialized type of individuals reached.

The major change in the advertising schedule this year, as compared with last, is the use of *Business Week*. The reasons which prompted this change are fairly obvious. The national defense program puts a premium on speed in production—also on quality of finished product and on over-all economy. Gas and modern gas equipment meet all the requirements for speed, economy and quality in production that industry can ask for. It is

"Just like a woman!"

"Always thinking of his pocketbook—about getting the best buy for his money—
That's a man, all right!
Wouldn't you think Joe'd care that a new automatic Gas range makes cooking easier for me? Cuts the time I spend pot watching?
That the marvelous insulation in a modern Gas range keeps my kitchen cool?
Or even that the flexibility of Gas gives me any degree of heat I want—
Or the instant high heat of Gas makes it the fastest fuel?
But no—it's buy a Gas range because it is thriftier!
Oh! men—men—"

A Proven Program of Advertising

"MAY I take this opportunity of congratulating the gas industry for its foresight in initiating and maintaining, for the last five years, a program of national advertising.

"We all like to do business with successful people. The public is no exception. It will wish to do business with the gas industry to the extent that strong, consistent national advertising keeps alive its own success story.

"I hope the gas companies of the United States will continue wisely with their proven program."—*R. G. Smith,* Executive Vice-President, Bank of America, San Francisco, Calif.

"IN joining the select company of those industries which are advertising their services and products to the American public on a national scale, the gas industry merits recognition for doing an excellent job."—*R. A. Rath,* Chairman, Advertising Planning Committee, American Meat Institute, Chicago, Ill.

"I HAVE noted with interest over the past few years the national advertising program of the American Gas Association. And I feel that the entire gas industry is to be complimented on a good job which is being well done.

"The inauguration of this program was a definitely constructive forward step with vast potentialities for good. Its continuance over a period of years is the best possible assurance that those potentialities will be realized."—*Robert H. McClintic,* Assistant to the President, Koppers Company, Pittsburgh, Pa.

"FROM its inception, I have been very much interested in the advertising campaign that has been so ably handled by your Committee for the Association.

"It is rare indeed that an Association doing advertising for an industry continues its campaign for a sufficient length of time to justify its cost. To my mind, no expenditure for advertising is justified unless there is a definite plan to continue from year to year. In the long run, it is only through repetition that advertising pays.

"I sincerely hope that your Committee succeeds in enlisting even a broader interest in this campaign for the future."—*H. Leigh Whitelaw,* Jones & Laughlin Steel Corp., Pittsburgh, Pa.

INDUSTRIAL AND COMMERCIAL GAS ADVERTISING FOR 1941-42

Fields To Be Reached	*Publication*	*Pages*
Metals Industry	The Iron Age	12
	Steel	13
	Metals & Alloys	12
	Metal Progress	12
	Heat Treating & Forging	6
Baking Industry	Bakers Helper	6
	Bakers Weekly	6
Food Processing	Food Industries	12
Ceramic Industry	Ceramic Industry	12
Hotels and Restaurants	Hotel Management	6
	American Restaurant	12
	Chain Store Age (Restaurant & Soda Fountain Edition)	12
Hospitals	Modern Hospital	6
Processing Industry	Chemical and Metallurgical Engineering	12
General Manufacturing	Industrial Heating	12
Business Executives	Business Week	13

vitally important to get this story of gas to top executives in industry. And *Business Week*—with its 116,000 circulation confined to the active management of business—gives this type of coverage effectively and economically. It also provides added coverage of industries which cannot be reached by vertical media without substantial budget increases.

Three different types of advertisements are used in the industrial and commercial gas campaign—case history advertisements, general advertisements, and *Business Week* tie-in advertisements.

Case history advertisements are built around specific gas equipment installations, using photographs of equipment, performance data, and testimonial statements wherever possible.

General advertisements are those which do not use specific installation data, but stress the many advantages of gas and modern gas equipment in a more general way.

Tie-in advertisements are those which are made up of a reproduction of *Business Week* advertisements with an additional column which relates the *Business Week* story to the special field under consideration. These tie-in advertisements are used only for industrial fields.

Business Week advertisements are ⅔-page in size. Symbolic illustrations, short copy, and effective use of white space characterize this series. Headlines are designed to attract the attention of defense-minded executives, and readers are invited to get in touch with their local gas companies for up-to-date information on how gas and modern gas equipment can help solve their production problems.

The slogan chart—The Trend Today Is to Gas—is a feature of all industrial and commercial gas advertisements. This chart has been used consistently since the inauguration of the campaign. It is effective because it expresses graphically what is actually happening in the industrial and commercial field. It is interesting to note that this same slogan chart has been adopted and is being used by a number of gas companies, as well as by gas equipment manufacturers, in their own advertising.

Once a month a preprint folder or broadside, containing advance proofs of all industrial and commercial gas advertisements for the following month, is prepared and sent out to gas company members of A. G. A., to equipment manufacturers, and to individual members of the Industrial and Commercial Gas Section.

Plans for the 1941-42 advertising campaign of the Industrial and Commercial Gas Section contemplate a continuance of the present campaign, with whatever adjustments in schedule may be necessary to conform to the budget.

Advertising Campaign Objectives

In summing up the various phases of the advertising program, I am proud to say that we are adhering faithfully to the objectives mapped out for this program when it was first initiated. Briefly, it is our desire to establish in the minds of millions of American housewives the conviction that gas is a thoroughly modern cooking fuel. We want to drive home the fact that gas ranges being manufactured today, the CP models being an ideal illustration, are as modern in their operating features and as attractive in appearance as those being advertised extensively by our most active competitor.

To create an appreciation of the merits of gas for cooking, we desire customers to replace old and obsolete equipment with modern gas ranges, rather than other types. We also want to strengthen the position of the gas industry by inviting the public's attention to the many special and inherent advantages provided by the use of gas for cooking, water heating, refrigeration and house heating—and, soon to come, air conditioning.

Finally, we desire to promote the use of gas fuel and modern gas equipment in those industrial and commercial fields which have been selected as of greatest value from the standpoint of potential load and profit possibilities.

The attainment of these objectives is vitally necessary to the growth and prosperity of the gas industry in America. We owe it to the public and to ourselves to tell our story by using the modern tool of national advertising.

FULL SPEED AHEAD
on Defense Production
with modern industrial GAS equipment
"Full Speed Ahead" is the order of the day in industrial plants everywhere. And Gas answers the challenge of industry with a fuel that is speedy, accurately controllable, flexible, economical—and adaptable to any industrial heating process.
If you are working against time in your plant; if you must step up your output quickly and maintain a high rate of production undiminish, and if, in addition, you must jealously guard the quality of your finished product and keep your unit costs down to a profit-making level—it will pay you to investigate Gas and the modern industrial Gas equipment now available.
Your Gas company will be glad to consult with you—to survey your industrial heating problem—and to show you how other companies in your line are using Gas to advantage in speeding up production.
AMERICAN GAS ASSOCIATION
INDUSTRIAL and COMMERCIAL GAS SECTION
420 LEXINGTON AVE., NEW YORK
THE TREND TODAY IS TO GAS

Typical advertisement in the industrial and commercial gas series directed to business executives

Hot Water and Health . . . *The Application of Pasteur's Principles to Eating Utensils*

PART I

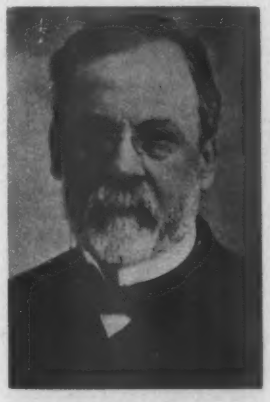
COL. LAWRENCE, the Englishman who became the Arab leader in the World War, describes entertaining some Arab leaders at a hotel in London during the Peace Conference. They, of course, had the finest of hotel rooms with running hot and cold water and bath. When he was about to send these Arabs back to Arabia, greatly disappointed as he was because he was able to win so little for them at the conference, he said, "I would like to do something for you personally if I may. What is it that you would like most to take back to Arabia with you, and if I can get it, I will do so."

The Arab leaders went into a conference that lasted many hours and finally they came out with their minds made up, and said, "Col. Lawrence, the things we would like to take back to the desert with us are two of those hot water faucets so we can turn on hot water whenever we want it."

It was quite a disillusionment when Lawrence told them, "Gentlemen, I'm sorry, but you cannot carry faucets around in your pockets and turn on hot water whenever you want it, because back of those faucets it is necessary to have a complicated system of piping, engines and hot water boilers."

Arabs in Our Midst

When you think of the hundreds of dollars being spent every day for bath rooms, bathroom fixtures, showers, shower stalls, washing machines, and electric dishwashers at $150 apiece, with little or no thought being given to the hot water that makes them work, I think you will agree that we have a lot of Arabs in our midst and that we need a lot of Col. Lawrences to make these people realize that they can't take hot water for granted. If they want these expensive appliances to operate efficiently, they must do something about the hot water necessary to make these appliances perform satisfactorily.



Louis Pasteur

Pasteur's work lives on, helping mankind to combat disease in new ways every day. First, his principles were applied to wine, then to beer, then to milk, which benefited to such an extent that the words pasteurized and milk became synonomous. Later, these principles were adapted to grape juice, dates and other foods, and now after considerable research they are applied to remedy one of the most appalling conditions of disease transfer—the improper cleansing of eating utensils. Pasteurization of eating utensils will be of great benefit to mankind and offers the gas industry an unmatched opportunity to sell gas water heating. This is the first of a series of three articles by Mr. Rohde on "Hot Water and Health."

By G. M. ROHDE, JR.

Ruud Manufacturing Company, Pittsburgh, Pa.

I have been in the utility business of a combination company, with a manufacturer of gas and electric ranges, and have been subjected to the sales training of many of the major appliances companies in the business, and I believe we might well copy some of the ideas they used to successfully promote their business. I say copy because there is nothing new in this selling business.

First, let's take the range business—Your mother and a lot of other mothers in this country raised families and baked the finest kind of food on stoves merely by placing their hand in the oven and guessing at the temperature. That's the kind of cooking they wrote about in books featuring George Rector and Diamond Jim Brady in the Gay Nineties, New Orleans Creole Cooking, and Southern Cooking—way before heat controls were ever heard of.

But was the range industry satisfied to leave well enough alone? They certainly were not. The range manufacturers, gas and electric, sold the controllability of oven temperatures so well that every recipe appearing in magazines, cooking schools, etc., gives the temperature in degrees Fahrenheit. As a result, women who have old fashioned stoves have trouble trying to follow these recipes and, consequently, a new range is in order.

Controlled Temperature Best

We used to roast meat by searing it at a high temperature, and mighty good those roasts tasted, but sear meat today? Not on your life. Not only is the United States Department of Agriculture against you, but also the National Live Stock and Meat Board, medical associations, range manufacturers, home service girls and salesmen. They state that meat must be roasted at a constant temperature, no higher than 350° F., because above this temperature they tell us shrinkage is increased and fats disintegrate into fatty acids which makes it difficult to digest. People proved that they could get along with coal stoves, but the range industry proved to the entire country that *controlled heat* for cooking was the MODERN way.

The point that I want to raise here

is that the range industry talked about specific, positive temperatures rather than generalities. The old style recipes used terms of moderate, hot, and very hot, which have disappeared entirely and given way to the new order of temperatures in degrees Fahrenheit.

Another industry that has done an outstanding job in educating people to look for correct temperatures is the refrigeration industry. For years, particularly in rural areas, people got along with ice, spring houses, window boxes, and cool cellars. People were not sold on the need of refrigerators. Their present system was O.K. until the industry sold the public that all kinds of cold was not cold. Correct cold, they said, was above 32° F. and below 50° F. If you go below 32° F. the milk will freeze and break the bottle, so they told us, and if you dare go above 50° F. bacteria will multiply so rapidly that foods will be unfit for human consumption in a few hours. They told us not to trust our eyes, nose, or mouth to determine whether food was fit to eat. The only way to be sure food was fit for human consumption was to place it in an automatic refrigerator.

Setting a Proper Standard

The point that I want to raise here is that the entire refrigeration industry was united on this specific, positive temperature of 50° F. Frigidaire didn't go around the country saying that 55° F. was all right, nor did General Electric Company say that 48° F. was correct, nor did Electrolux claim that 40° F. was the correct temperature. The entire industry got behind the 50° F. danger line and sold it to the American public.

Window boxes gave free refrigeration, and as a result many people shut off their refrigerators during the winter time. You wanted this load during the wintertime, but you could not prove that the window box consumed one shovel-full out of five as the furnace coil does. So, you went to the weather bureau and obtained information which proved that there were only 19 days during the year that foods in the window box were properly refrigerated. You sold this idea so well that today the number of people using part time refrigeration has been reduced to a minimum. These industries first selected definite temperatures and then substantiated these with authoritative information. We have such authoritative information in the water heater business—it will do for our industry what it did for these if we will believe in it and tell it as sincerely and consistently as they did.

We have allowed the American public to judge correct water temperature by the use of the temperature they can

hold their hand in comfortably. Most people cannot submerge their hands in water over 118° F., yet a temperature as low as this does not effectively kill bacteria.

Very fortunately for us, the refrigeration industry, has sold more than 60% of the families of America automatic refrigerators, which means that these people have been sold on the refrigeration zone and the fact that bacteria multiply rapidly above 50° F.—but they *haven't* been told or sold at what temperature bacteria are *destroyed*.

We all know that bacteria multiply above 50° F. At 60°, 70°, 80°, and 90°, their multiplication is accelerated tremendously. Temperatures around 100° F. are temperatures used in laboratories for producing germ colonies and are the optimum temperatures for most bacteria growth. At 115°-135°, they still keep on growing, and not until they reach 142° are bacteria destroyed.

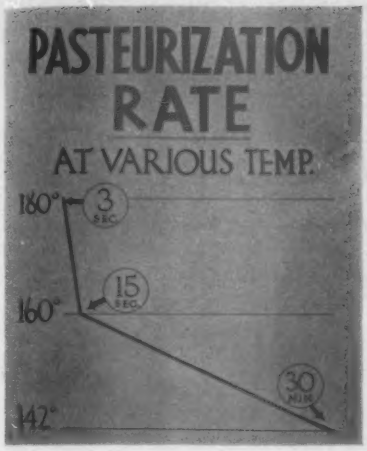
We can see that water from 50° to 142° F. is really in the danger zone as far as its effect on bacteria is concerned. A recent article by a leading electric dishwasher manufacturer illustrates the point very clearly. He said: "It is safer to wash your dishes in ice water than it is to wash them in water in the danger zone because at least they will not have any more bacteria when you finish washing them than they had when you put them in the wash water."

You may question the 142° F. minimum and ask by what authority I dare set this minimum and my answer is—no less an authority than Louis Pasteur, who in his law of pasteurization set 61° C. or 142° F. as the minimum temperature, and even at that temperature a time factor is necessary. Every man, woman and child in the U. S. knows Pasteur and pasteurization and what it means from a health standpoint, but very few realize that it requires water of this same temperature to pasteurize dishes. So great is the respect for Pasteur's contributions to mankind that the whole world continues to pay homage to him.

Application of Pasteur's Principles

The first application of Pasteur's principles to the destruction of pathogenic organisms on eating utensils is credited to Wesley C. Cox, M.D. Lieut. Col., Medical Corps, U. S. A. Laboratory Service, Walter Reed General Hospital, Washington, D. C., who in an article appearing in the February, 1938, issue of the *American Journal of Public Health* on "Pasteurization of Eating Utensils," said, "The term 'Pasteurization of Eating Utensils' is used as it is believed that it best described the flash method of thermal destruction of the organisms contaminating used utensils, and conveys to the average mind an *accepted standard* of cleanliness."

Pasteurizing eating utensils can be accomplished by submerging them in water at a minimum of 142° F. for 30 minutes, 160° F. for 15 seconds, or 180° F. for 3 seconds. Since at 142° F. the time element (30 minutes) is too long for most people, W. D. Tiedeman, chief, Bureau of Milk Sanitation, New York State Department of Health, recommends the use of the "short time pasteurizing range" starting at 160° F. At this temperature only 15 seconds are required. Many people will like the 180° F. which only requires 3 seconds,



first because it saves time, and second, plates heated to this temperature dry themselves.

With regard to temperature of wash water, it was found that most people cannot wash dishes in water above 118° F. yet temperatures as low as this do not kill bacteria. This washing does, however, remove grease and visible dirt and exposes the bacteria to more effective thermal destruction when they are pasteurized with high temperature rinse water.

Dish Washing Tests

A test on dish washing temperatures conducted by health officers on the West Coast revealed that "the average temperature of wash water in 20 eating places was 100.4° F.; in 11 places the rinse water averaged 109.5° F."* This illustrates the importance of emphasizing the high bacteria count of wash and rinse waters and the *ineffective temperatures* in common use.

Pasteurizing milk was the first important step to combat pathogenic organisms. The results from a health standpoint have been so sensational that no man will question its benefits. Next came refrigeration after science found that bacteria became dormant and multiplied very slowly at temperatures below 50° F. The last important step is pasteurizing eating utensils. What good does it do to protect milk from bacteria by pasteurization and refrigeration and pour it into a glass that may be heavily contaminated with pathogenic bacteria even though it looks clean?

The range and refrigeration industries had to manufacture their correct temperature zone. They had no eminent authority like Pasteur to back up their claims. The water heating industry can render great service and reap rich rewards in applying the teachings of this great scientist who "put microbes on the map with a heartfelt vengeance."

A Common Meeting Ground

For the first time in 52 years of the automatic water heating business, we now have a common meeting ground between the customer's mind and salesman's mind on what the subject of hot water is all about and why the hot water coming from an automatic gas water heater is different and worth more. We now have a vehicle which I believe will help carry more automatic gas water heaters in to the homes of America. We now have a merit badge to place on this kind of hot water as being different, not just hot water, but *Pasteurized Water* which is Certified to Perform on bacteria.

(To Be Continued)

* National Association of Sanitarians, Inc.

Plant Expanded To Meet 50% Gas Increase

INDUSTRIAL use of gas in the area adjacent to Philadelphia has increased over 50 per cent in four months, causing the Philadelphia Electric Company to place orders for the immediate rebuilding of its idle coke plant at Chester.

The cost of the improvement will approach a million dollars and the new plant will be in production in less than a year.

Orders have been placed for 21 coke ovens which will produce 10,000,000 cubic feet of gas a day.

To enlarge the present plant, and have room available for a future storage tank, the property of the Delaware River Steel Company, adjacent to the present gas plant, has been purchased. This includes a steel blast furnace which has been idle and unused for eleven years. However, government defense officials believe that the furnace, if leased or sold by the Philadelphia Electric Company, can be put into production quickly and produce some 300 tons of pig iron a day. Plans are maturing toward that end.

The new coke ovens will use about 400 tons of coal a day and produce as by-products of the gas, some 275 tons of coke which will be sold commercially or used in the manufacture of "oil gas" at other company plants.

Association's 1941 Annual Meeting To Be Held in Atlantic City, Oct. 20-22

THE Annual Meeting of the American Gas Association will be held in Atlantic City, New Jersey, on October 20, 21 and 22, 1941.

Because of the tremendous increase in activities incident to the national defense program and other exigencies affecting our situation, the program will be brief, pertinent and inspiring. Naturally, no entertainment is provided, as this will be strictly a business gathering, although there will be subscription luncheons and dinners.

Sectional programs, fewer in number, will be so arranged that the splendid meetings of the past will continue in importance and interest to those most concerned with Sectional activities.

We believe that with the constantly increasing effort and enthusiasm diverted to our country's welfare, our company members will appreciate this arrangement, especially in the light of the greater demands of the times.

Details of the program will be made available to members as soon as they are formulated.

T. J. STRICKLER
President, American Gas Association.

Grease Method . . . *of Making Emergency Shut-Offs of Small Low Pressure Mains*

- **Great interest was aroused during the national defense forums at the recent A. G. A. Distribution and Production & Chemical Conferences in the newly developed method of making emergency shut-offs of low pressure mains described in Mr. Andersen's article. While this material was presented at "closed" sessions, it was released for publication in view of its timely importance to the gas industry.**
- **By means of the grease method, a small low pressure main can be shut off in five minutes or less and will hold at least 24 hours against 7 inches of water column.**

By H. B. ANDERSEN

The Philadelphia Gas Works Company, Philadelphia, Pa.

IN a meeting of our supervisory force held in the Spring of 1936 to discuss the lessons which had been learned during the preceding winter, we asked ourselves whether some means could be found for shutting off gas in an emergency from a section of low pressure main which would take less time than the time-honored method of excavating, tapping and bagging. Someone suggested that it might be possible to shut off gas by pumping heavy grease through a house service into the main. This suggestion was referred to our Transportation Division, which is in charge of maintaining our street machinery, for experiment and development if the experiments showed promise.

Experimental Work

The experiment was made in a length of 6-inch cast iron pipe in our storeyard. We tapped a 1¼-inch hole in the main and ran from it 20 feet of 1¼-inch pipe to represent the house service. On either side of this tap hole we cut a piece 6 inches wide out of the top of the main for a distance of 12 inches and closed the openings with celluloid. We capped both ends of the pipe, connected to one end thereof a pressure regulator, U gauge and air compressor, and at the other end we installed another U gauge, and tapped two openings which were controlled with stop cocks. Air was passed through the 6-inch pipe at a pressure of 7 inches of water column as shown by U gauges and at a rate probably in excess of 3,000 cu.ft. per hour. We then pumped grease through the 1¼-inch pipe and as it entered the main, watched its action through the celluloid window.

After the first test was made, many of the problems involved became apparent. The primary consideration, of course, was the consistency of the grease required. Actually, on that first test we could shut off 5 inches of water column pressure, but the seal blew open at 5½ inches. We then tried a number of fibre greases which seemed satisfactory except that our pumping equipment handled them so slowly that all the speed value of our idea was lost. Our aim, as noted at that time, was to be able to pump enough grease to make a shut-off in five minutes or less that would hold for at least 24 hours against 7 inches of water column. Many more trials of various combinations of grease and equipment finally achieved this aim.

We then experimented with the equipment on the street, by making shut-offs in mains we were about to abandon. These experiments were successful, and showed us that we had a tighter seal than we had expected. To determine how much pressure the grease would hold, after the shut-off had been made on an abandoned main and held for 24 hours, we cut and sealed the main. Mercury gauges were substituted for the water type and the pressure was then built up. The grease held satisfactorily up to 5 inches on the Mercury gauge and broke when nearly 6 inches pressure had been applied. We believed this to be a very satisfactory safety factor for our low pressure mains. In the course of the experiments on these mains to be abandoned, we found it entirely feasible to shut gas off in the main by driving a bar through the paving, the paving base, the earth over the main, and finally through the top of the main itself, and then injecting grease into the main through a ¾-inch pipe pushed into the main through the barhole.

Change Grease in Winter

All the tests so far described were made during warm weather, and the advent of winter showed that the grease we were using became too stiff to pump when exposed to the lower temperatures. Another series of experiments was conducted on ability to pump various grades of grease, with the result that we determined to use two different grades, one for cold and the other for warm weather.

Various other mechanical troubles were encountered and overcome.

In the few years that have since elapsed, the equipment and the method of storing it for easy handling and transportation have been improved, and on a few occasions in the field, it has been used with marked success. Each case in the field had involved a 6-inch main.

We feel that this "grease" method of shut-off in emergency cases is certainly of advantage under many conditions. There may be cases where the emergency does not justify the later expense of cutting out the two or three feet of pipe which contains the grease. There is no way of which we know, except this, by which the grease can be

Editor's Note—A paper describing this development was also presented by R. C. Holcombe, The Philadelphia Gas Works Co., before the Pennsylvania Gas Association.

removed, but perhaps a way can be found. Although we have made no experiments, we believe that 8-inch and perhaps 12-inch low pressure mains could be shut off in this way.

Standard Methods of Operation When House Service Is Available

Locate a 100-pound drum of grease either on sidewalk near cellar window, or in basement. Make sure follower plate is in drum on top of grease. Place pump in center of drum, with suction tube through hole in follower plate. Remove plug from end of service and install 1¼-inch cock assembly, shut meter cock and remove meter. Select shortest suitable length of grease outlet hose, and connect one end to the 1¼-inch cock assembly and other end to the pump.

Connect air compressor hose to grease pump, using leader hose to make the connection, and making sure the lever handle on cock at the pump is closed.

Pump is then ready to operate and can be started by turning on the supply at the compressor and then opening lever cock at air inlet on pump.

NOTE: If plug cannot be removed from end of service, connect grease hose to meter inlet connection, after first removing meter swivel and substituting suitable grease hose adapter. Open meter cock and proceed as above.

Alternate Method of Operation When House Service Is Not Available

In case a house service is not available, make a barhole and break a hole in the main. Insert in this hole the ¾-inch pipe with grease outlet hose attached. To stop gas from escaping through barhole, pump grease into it while inserting ¾-inch pipe. When grease is being pumped into the main, hold the ¾-inch pipe down to prevent grease pressure from pushing it out of barhole.

While operating pump, hold it upright in center of grease drum so that follower plate is free to move downward as grease is pumped out of the drum. In case follower plate sticks, push it down by hand.

To stop gas flow, pump the following quantities of grease:

Quantity of Grease for 6", 4" and 3" Mains

First—⅓ Drum (33 pounds) to fill each 30 ft. of 1¼-inch or smaller service.

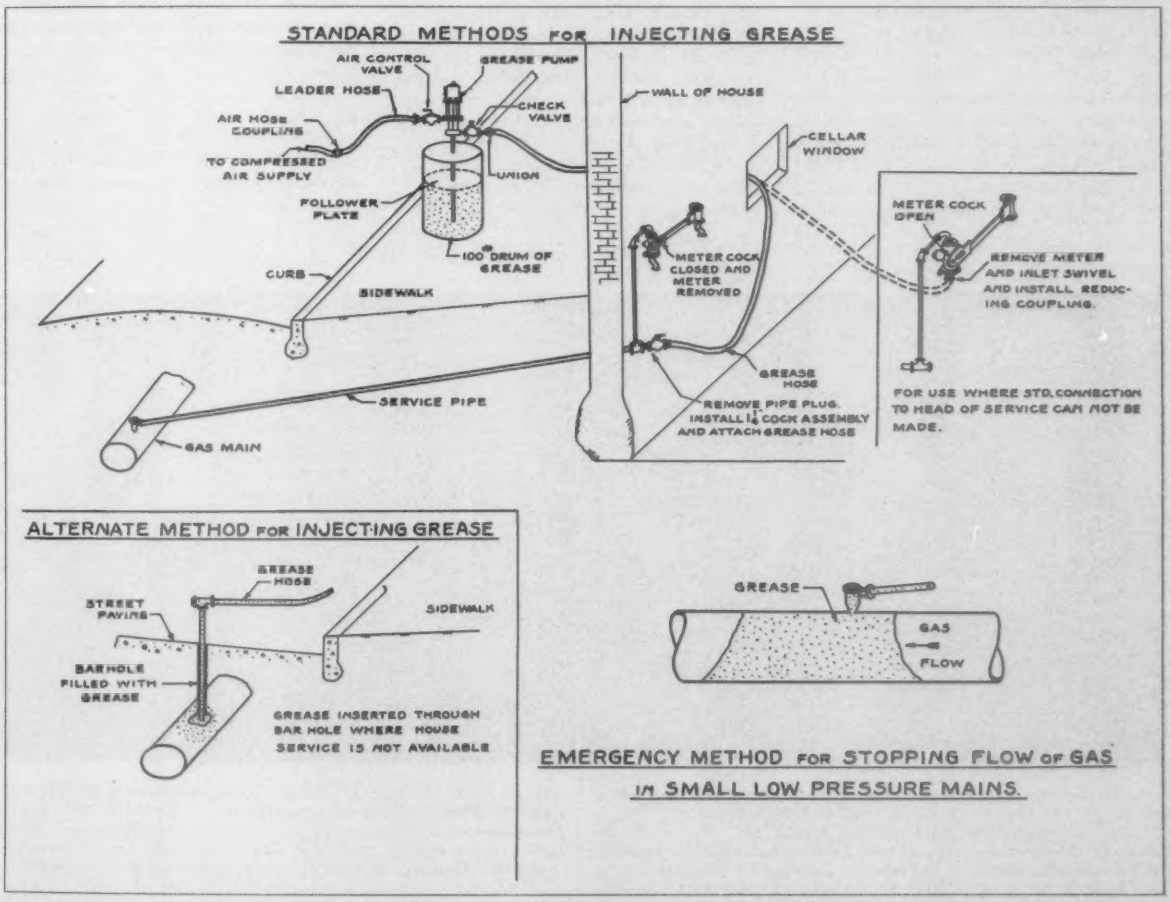
Second—⅓ Drum (33 pounds) to build up the grease slug in the main.

For larger mains, and for larger or longer services, proportionately greater quantities of grease will be required.

After use of the equipment, grease should be removed from the rubber hoses to prevent deterioration.

List of Equipment

(1) Lincoln Drum Pump, Model 1778XX —Air inlet equipped with ⅜" lever cock, and ⅜" x ¾" pipe coupling connected with two ⅜" close nipples. Air discharge equipped with ½" service "L" with screen to prevent mistaking it for inlet. Grease discharge equipped with ¾" spring, loaded


STANDARD METHODS FOR INJECTING GREASE
AIR CONTROL VALVE
GREASE PUMP
LEADER HOSE
WALL OF HOUSE
CHECK VALVE
AIR HOSE COUPLING
CELLAR WINDOW
TO COMPRESSED AIR SUPPLY
UNION
METER COCK OPEN
FOLLOWER PLATE
100 LB DRUM OF GREASE
METER COCK CLOSED AND METER REMOVED
REMOVE METER AND INLET SWIVEL AND INSTALL REDUCING COUPLING.
CURB
SIDEWALK
GREASE HOSE
SERVICE PIPE
REMOVE PIPE PLUG. INSTALL 1¼ COCK ASSEMBLY AND ATTACH GREASE HOSE
FOR USE WHERE STD. CONNECTION TO HEAD OF SERVICE CAN NOT BE MADE.
GAS MAIN
ALTERNATE METHOD FOR INJECTING GREASE
GREASE HOSE
STREET PAVING
SIDEWALK
BARHOLE FILLED WITH GREASE
GREASE INSERTED THROUGH BAR HOLE WHERE HOUSE SERVICE IS NOT AVAILABLE
GREASE
GAS FLOW
EMERGENCY METHOD FOR STOPPING FLOW OF GAS IN SMALL LOW PRESSURE MAINS.

check valve and male half of ¾" union, connected with two ¾" close nipples.

(2) Compressed air supply. Pump uses 32 cu.ft. of air per minute at 100 pounds pressure.

(3) 1—12-ft. length ¾" leader hose for connection between grease pump and compressor hose. Equipped with hose nipple, ¾" hose x ½" pipe thread and ¾" air hose coupling on ends.

(4) 1—6-ft. length grease outlet hose. ¾" air hose equipped with hose nipple (¾" hose x ¾" pipe thread) on each end, and female half of ¾" pipe union on one hose nipple.

(5) 1—10-ft. length grease outlet hose equipped same as 6-ft. length.

(6) 1—20-ft. length grease outlet hose equipped same as 6-ft. length.

(7) 1—Male half ¾" pipe union to connect two lengths of grease outlet hose.

(8) 8—1-in. pipe plugs.

(9) 2—1" x ¾" pipe bushings.

(10) 2—1¼" x ¾" pipe bushings.

(11) 2—1½" x ¾" pipe bushings.

(12) 1—1¼" cock assembly fitted with two bushings 1¼" x ¾", and a ¾" x 3" nipple.

(13) 1—Grease Hose Adapter for 5 size meter connection. (½" close nipple and ¾" x ½" reducing coupling.)

(14) 1—Grease Hose Adapter for 20 size meter connection. (1" close nipple, and 1" x ¾" reducing coupling.)

(15) 1—Grease Hose Adapter for 30 size meter connection. (1¼" close nipple, and 1¼" x ¾" reducing coupling.)

(16) 1—Grease Hose Adapter for 60 size meter connection. (1½" close nipple, and 1½" x ¾" reducing coupling.)

(17) 1—½" T-handle socket wrench for drum lids.

(18) 1—9/16" open-end wrench for drum lids.

(19) 1—Cross type wrench with sockets to fit ¾", 1", 1¼" and 2" pipe plugs.

(20) 1—4-ft. length ¾" pipe equipped with ¾" tee and ¾" plug.

(21) 1—1-in. Service Stopper.

(22) 1—1¼-in. Service Stopper.

(23) 1—1½-in. Service Stopper.

(24) 1—2-in. Service Stopper.

Grease, as specified below, should be dispatched with each pumping outfit:

5—100-pound Drums Gulf H.M. Grease (Used from May to Oct., inc.), or

5—100-pound Drums of 50% Gulf H.M. Grease and 50% Gulf No. 2 Cup Grease (used from Nov. to April, inc.)

1—Follower Plate in each Drum.

Installment Selling Terms Curtailed

IN line with the Federal government's expressed policy regarding curtainment of installment selling in view of the present emergency and the needs which may develop for national defense, Consolidated Edison Company of New York, Inc., has revised the financing terms applying to the selling of major electric and gas appliances under the company's Three-Year Cooperative Plan. The new terms, which were announced by E. F. Jeffe, vice-president, and became effective June 20, call for a reduction of the maximum period for time payments from 36 to 24 months and for larger initial down payments. The principal items in this category are refrigerators and ranges. The installment period on other appliances such as laundry and kitchen equipment has been reduced from 24 to 12 months.

In announcing the new terms Mr. Jeffe said: "It is better for retailers and manufacturers to take the initiative in adjusting themselves to the basic changes in merchandising methods which are likely to take place as a result of present conditions. We are glad to be among the first in this territory to take decisive steps toward complete cooperation with the government in its efforts to prevent inflation and solve the greatly accentuated problems of priorities and deliveries."

Former Laclede Gas President Dies

CHARLES L. HOLMAN, former president of the Laclede Gas Light Company, St. Louis, Mo., died June 21 following a long illness. He was 70 years old.

During his 22 years' connection with Laclede Gas, the last 13 as its president, Mr. Holman was active in various civic and business organizations. He was formerly a vice-president of the American Gas Association.

Mr. Holman resigned the presidency of the gas company in 1925 to become head of the Georgian Manganese Company, formed by the Harriman and Rockefeller interests to operate a manganese concession in Russia. After several years' operations, the company encountered obstacles in dealing with the Soviet government and Mr. Holman withdrew from it and returned to St. Louis.

A combination of fundamental and applied research for the benefit of the gas consumer is aptly illustrated in these striking photographs of the Cleveland plant for liquefying natural gas, taken from the adjacent American Gas Association Testing Laboratories' building. While the American Gas Association Laboratories carry on testing and research on gas appliances, the liquefaction plant next door provides a living example of an outstanding engineering achievement resulting from fundamental research over a period of years. The photograph on the left was taken from one of the Laboratories' 5,000 cu.ft. test gas holders while that on the right was snapped from inside the building, with A. G. A. engineers in the foreground

Building from Within . . . *"Know Your Community" Campaign Wins Approval*

A NEW and original institutional advertising feature developed by the Rockland Light and Power Company of Nyack, New York, has created considerable interest in the utility industry at large as well as among the company's customers in the territory which it serves.

F. L. Lovett, vice-president and general manager of the company, suggested the campaign from an idea which came to him as a result of his contacts with industrial and commercial executives active in trying to solve community problems through such organizations as the chambers of commerce, boards of trade, and business men's associations. His thought was that the first step in the development of a community is to know what the community already has.

With the idea of spreading information about the communities served by the company, a series of advertisements under the general heading "Know Your Community" was prepared and run in the three daily newspapers in the company's territory. The statement that the industry mentioned was served by the Rockland Light and Power Company appeared in each advertisement.

These "Know Your Community" advertisements were numbered in sequence and covered the principal industries and institutions in the territory. The advertisements were keyed to human interest as well as to an economic motif. They appeared twice a month and occupied about a quarter of a page in space. The advertisements dealt with manufacturing plants, hospitals, creameries, public institutions, and a railroad. They attracted almost instant attention with increased interest being manifested as the campaign progressed.

The newspapers reported larger sales on the days these advertisements appeared and at least one paper received a substantial number of orders for a complete file of the advertisements.

- **This is the ninth of a series of articles appearing in the MONTHLY dealing with community development activities. Under the chairmanship of H. C. Thuerk, the Community Development Committee is presenting a variety of tested ideas that may be used by large or small companies.**
- **Preparation of the material is directed by the committee's editorial board consisting of John H. Warden, Oklahoma Natural Gas Co., Tulsa, Okla., and G. A. Saas, Citizens Gas and Coke Utility, Indianapolis, Ind.**

For instance, two bankers wanted them for their credit files and many of those firms mentioned in the advertisements ordered additional copies to send to their friends and customers. Every firm in the territory could not be included in the program, therefore, those included were limited to the ones of sufficient size to be on the company's wholesale power rate. More than sixty separate advertisements were published, and they ran for nearly a year.

The advertisements covered the manufacture of pipes, rayon, laboratory supplies, ship lumber, brick, crushed stone, sweaters, slippers, shirts, fibre conduit, pocketbooks, ships, and many others. A survey of the completed series revealed that the combined payrolls of the various firms covered reached a total of more than thirty-six million dollars annually—a tidy sum in anybody's money.

The advertisements showed how communities develop. One concern which started twenty-five years ago with half a dozen employees now employs nearly two thousand persons with an annual payroll of more than a million dollars. Another concern started four and a half years ago with six employees and now has more than one hundred with an annual payroll of one hundred and forty thousand dollars.

Louis Ungar Braid Co., Inc.

One of mankind's oldest industries, if not the oldest, is the manufacture of textiles. It is known to have existed at least five thousand years ago. In fact, the art of weaving is of such extreme antiquity that its beginnings cannot be traced. Anything made in a loom is a textile. This takes in the braid which is manufactured by the Louis Ungar Braid Co., Inc. at 177 Jersey Avenue, this city. The firm came here about four years ago and located in the K. and M. building. Prior to that time it had been manufacturing in New York City for about seven years. It had an established reputation in the trade for the excellence of its product. Last December the concern moved to its present location in order to make room for another industry which sought quarters in the K. and M. building and which needed more room than was available elsewhere. This move was an example of the kind of co-operation which helps to promote progress in any community.

Know Your Community

No. 18

This is the eighteenth of a series of advertisements about Port Jervis industries.
It is a contribution by the Rockland Light and Power Company toward a better understanding of the city's resources. The Ungar Braid Co., Inc., is served by the Rockland Light and Power Company.
Another advertisement covering another Port Jervis industry will appear in an early issue of the Union-Gazette.

Factory Has Large Capacity

The weaving of braid is somewhat seasonal—due to conditions in allied industries—but when the Ungar plant is running to full capacity it can produce more than fifty miles of braid a day—or enough to reach from Port Jervis to Paterson, N. J., and something to spare. There are machines of varying types in the Ungar set-up to the number of two hundred and fifty. They produce braids of every imaginable style and color. The braid has many uses, mostly for trimming and decorating. A large quantity goes to the manufacturers of furniture by whom it is used for finishing as well as ornamentation. Dress trimmings, decoration of beach slippers, millinery, lamp shades, pocketbooks and other similar uses are found for it. The braid is made in a variety of patterns, all of which are fabricated from original designs made in the plant or from suggestions made by customers on special orders. Materials from which the braid is made are cotton, rayon and wool.

Primitive Loom a Simple Affair

The machines used for weaving in the Ungar plant are nearly all built around the fundamental principle which goes back to the loom of most ancient times. This primitive loom may have been no more than a simple beam suspended from the branch of a tree and sustaining the warp fibres, or threads, the weft being worked in by hand with a thorn needle, or some similar instrument. But from early days to the present time it has been by this fundamental process of interlacing two sets or more of threads in looms of simple mechanism that all known textile fabrics have been produced. Examples are the mummy cloths of Egypt, centuries old; the fine damasks and tapestries of Rome and Greece, the Indian muslins and the shawls of Cashmere. The modern machines in the Ungar plant turn out a great variety of material to meet the changing demands of the trade as to style and price. Some of it is very beautiful.

Still Some Handwork Done

The Ungar company provides work for employes both in the mill and in their own homes. Handwork is still unavoidable on some styles of braid and this work can be done outside the plant. It makes a pleasant and profitable occupation for about thirty workers who do not find it convenient, perhaps, to leave their homes. Workers in the factory number about thirty, both men and women, on a yearly average and the annual payroll for all classes of workers runs around $30,000. The Louis Ungar Braid Co., Inc., is another one of those light industries which helps to keep the economic wheels turning for it brings money here from outside and pays it out in wages to be spent in Port Jervis.

So it went. One business man in the territory, who read about a plant in his home city with a quarter of a million dollars a year payroll, remarked to a power company officer that he didn't even know there was such a plant in town.

The series presented a comprehensive picture of the growth and progress of what happens to be an exceptionally prosperous territory over a period of fifty years. One or two of the industries went even farther back than that with their beginnings in early colonial days. This territory has had no great booms. Conversely, it has never suffered in the depths as some communities have during depression periods. Its economic well-being is solid and substantial, and the series of advertisements published by the Rockland Light and Power Company bears testimony to the fact in a very convincing fashion.

The "Know Your Community" campaign, however, was just a feature of a general campaign conducted by the Rockland Light and Power Company, under Mr. Lovett's direction, to humanize the enterprise and to lead the public generally to appreciate the fact that the company is a part of the community and is deeply interested in its progress and general welfare. No claims are made that the "Know Your Community" advertising feature was designed as a direct selling proposition. It was institutional copy which turned out to be of real educational value to the community served. As such it won the approval of many thoughtful and public-spirited persons.

First of 1400 Gas-Equipped Homes for Defense Workers Completed

John A. Weiser, vice-president and general manager, The Newport Gas Light Co., and W. S. H. Dawley, chairman, Newport Housing Authority, opening the gas valve after completion of the first group of defense dwelling units. In the picture are, left to right: E. J. Wilson, J. Earle McLennan, W. J. Donovan, H. B. Maynard, Mr. Weiser, Mr. Dawley, G. F. Wells, Jr., J. J. Sullivan, Sr., A. J. Sullivan, J. H. Cremin, Fred Turgeon, James Sullivan, Jr., John Wright, and W. E. Sullivan Inset is a picture of a typical kitchen.

AT a special ceremony on June 17, gas was turned on in the first group of 262 dwelling units for defense workers in Newport, R. I., which was being occupied at that time. Gas, which will be used for cooking, refrigeration and automatic water heating, is supplied by the Newport Gas Light Company.

Opening of the first of three projects in Newport, totaling 1,400 dwelling units, all of which will use gas, attracted considerable attention. The ceremony of opening the valve was performed by John A. Weiser, vice-president, Newport Gas Light Co., and W. S. H. Dawley, chairman of the Newport Housing Authority. Officials of the Housing Authority, Chamber of Commerce and other prominent local men took part in the ceremony.

The dwellings, which are equipped with the latest gas appliances as well as other modern conveniences, are available to defense workers in various departments of the Navy at the operating base and torpedo station and to married enlisted personnel of the Navy. The automatic water heaters are not shown in the accompanying photograph because they are placed in a utility room beneath the kitchen along with the heating plant.

Texas Gas To Be Piped to Michigan

AN arrangement has been concluded between the Consumers Power Company, a subsidiary of the Commonwealth and Southern Corp., and the Panhandle Eastern Pipe Line Company calling for the delivery of approximately 10 billion cubic feet of natural gas annually from the Texas Panhandle field to the extensive gas transmission network of the Consumers Power Company in Michigan which serves the highly industrialized cities at Pontiac, Flint, Jackson, Marshall, Kalamazoo, Saginaw and Bay City. According to newspaper reports, it is contemplated that within five years natural gas deliveries into the Consumers' system will run up to 15 billion cubic feet annually.

Munroe Award To Honor Outstanding Gas Man

THE Charles A. Munroe Award of the American Gas Association, consisting of a substantial sum of money and a permanent certificate, is made annually by the Executive Board to the individual judged to have made the most outstanding contribution toward the advancement of the gas industry. It will be presented at the Association's Convention in Atlantic City in October.

An accomplishment on any phase of the gas business may be considered. For instance, since the first award in 1929, it has been given for developments in refrigeration; labor saving accounting; rate making; dealer cooperation; sales expansion; public relations; research; change-over from one to another kind of gas, and promotion of the national advertising program. Perhaps you know of some one whose accomplishments in behalf of the gas industry make him worthy of consideration for the Award. If so, it is suggested that you sponsor an application in his behalf. Applications must be received before August 1, 1941.

The recipient of the 1941 Charles A. Munroe Award will be selected by a committee appointed by President Strickler. The committee will welcome the applications of companies who have worthy candidates for consideration.

Air Conditioning . . . *Gas Summer Product Is Now an Exciting Reality*

By JOHN K. KNIGHTON

Servel, Inc., Evansville, Indiana

John K. Knighton

THE subject of air conditioning is not new—as a matter of fact, the art, as it is sometimes called, is more than twenty-five years old. Then, too, some of you may recall that as far back as 1930 economists were predicting a glorious future for the air conditioning industry. The industry has progressed, but certainly not in keeping with the predictions of that period. The age of the industry and its failure to achieve volume and prominence in keeping with those early expectations may cause some of you to wonder why we in the gas industry should now become excited about the subject.

Cooling for Comfort

Public interest in air conditioning stems from the fact that air conditioning to the lay person implies summer comfort cooling; however, in truth, it is the automatic maintenance of a predetermined condition of the atmosphere within an enclosure. The effect then can be for industrial processing or human comfort. The specific application may be for winter or summer; however, from our point of view we are talking about air conditioning for human comfort winter and summer—and, more specifically, we are talking about air conditioning for the residential market, a virgin market in many respects, and for some good and sufficient reasons.

First, and foremost, is the fact that even though air conditioning equipment has been made available in the past, the attitude of the electric utility, generally speaking, has been such as to discourage the promotion of electric compression refrigeration for an air conditioning application in this particular field, the primary reason being that of inadequate distribution facilities for the horsepower requirement and, of late, a realization that the load factor is undesirable. These facts have caused manufacturers of electric compression equipment to veer off from the residential market, notwithstanding its relative size and importance. The obstacles on the electric side of the picture, in the form of both economic and mechanical disadvantages, serve not only to provide us with an assured opportunity, but present for us in the gas industry definite economic and equipment advantages as well. Then, too, a further adavntage accrues to us by virtue of the fact that through your house heating activities you have established contacts—a definite relationship with this segment of the buying public—and a knowledge of the market.

A Rich Opportunity

We have every reason in the world to become excited and we do not need the predictions of an economist, nor the forecasts of an astrologer, to give us cause for this excitement. Instead, we can deal with facts and from these facts conclude that we do have a rich opportunity. Your selfish interests from a load-building standpoint probably form the base of your interest or excitement—and that is perfectly all right. I do not know of a better motive for accomplishment than that of good, clean, moral, selfish interest. It has philanthropy backed off the map when it comes to getting a thing done. You have every right to be excited over the load-building possibilities of gas-fired air conditioning equipment—not that it will immediately level off your send-out, but it is the greatest single factor that can appreciably contribute to this ideal or Utopia of non-seasonal gas service—and the *summer* load represents plus business definitely.

Now what is there about product from a gas air conditioning point of view that might cause us to become excited? And, again, I must repeat that we have all the reasons in the world—not the mere fact that it is a gas consuming device, for that would be of interest only to you as gas utility executives—but from a consumer or user point of view the fact that it is a gas consuming device can be interpreted in many different forms of benefit.

Benefits of Gas-Fired Jobs

Let me relate the basic points of difference between mechanical compression refrigeration equipment and absorption refrigeration, and I believe you will readily see that gas-fired refrigeration has many benefits from a consumer point of view. First, is the fact that the application problem of air conditioning for summer comfort cooling is met most ideally when the exact capacity of equipment is matched with the exact requirement of the job, and this can be done with gas by regulating the input to the requirement. Certainly an electric motor is not so flexible.

Then from an air conditioning point of view, comfortable conditions are maintained on an even keel somewhat in proportion to the hours of operation of equipment in accordance with demand. Here, again, gas absorption refrigeration comes to the fore with an ideal answer, in that, by step modulation, refrigeration can be maintained over a longer period in direct proportion to the requirement of the job, and thus maintain a satisfactory condition of both temperature and humidity, whereas electric compression equipment must operate "full on" or "full

Address before A. G. A. Natural Gas Convention, Dallas, Texas, May 5-7, 1941.

off," actuated only by the maximum capacity required and permits of wide fluctuations in humidity—certainly not conducive to human comfort.

We then come to the inherent advantages of absorption refrigeration, such as no moving parts, nothing to wear out, low maintenance cost, and assured long life, valuable points of difference that I am sure you are familiar with through your gas refrigeration activities.

Then, too, because of these features we have the incidental but all important feature of quietness, an attribute of air conditioning that is becoming of greater importance every day because people are now beginning to associate the desirability of a quiet, peaceful atmosphere along with that of cool comfort, and the latter cannot be so desirable if noise and vibration come along in its wake.

Conventional electric compression equipment was not designed for an air conditioning application—instead it was designed for refrigeration duty 12 to 14 hours per day, 365 days in the year—but when applied to an air conditioning job it is subject to a continuous off cycle period of from 6 to 8 months, with trouble the inevitable result—seal leaks, loss of refrigerant, and similar troublesome conditions—conditions that can only be eliminated if the equipment is taken in and out of service by a qualified mechanic, a rather costly and, in practically all instances, untimely procedure.

Contrast this condition with that of absorption refrigeration wherein the off cycle period can be an hour, or a day, or a year—it makes no difference —apply heat and you have refrigeration, remove it and the system lies dormant. Certainly product gives us something to get excited about.

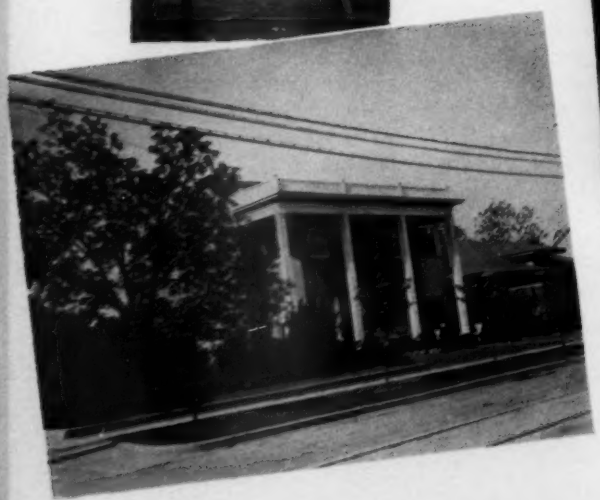
Residential Market

Now that we have a satisfactory product, where are we going to sell it, and to what extent? Speaking broadly, the market for air conditioning can be described as those places where people live, work, shop, eat, travel, and play—surely nothing can be more inclusive. However, we want to be more specific; and, with product in mind, I shall talk about the residential market.

First, let me explain that I use the term "market" to mean where we can sell, and the term "potential" to mean how much. The market for air conditioning, as we view it today, is divided into two parts—first, new construction, and second, existing construction. Of first importance to us in the sale of an "all year" air conditioning unit is the fact that the prospect must buy a heating plant. In other words, he is now in the market for a part of what we have to sell. Thus sales resistance is lowered appreciably; I should say more than 50%. Therefore, new construction is of first importance. Then, too, from an application engineering point of view, the problem is minimized because of the ease with which an air distribution system can be designed when we are dealing with construction that is still on the drafting boards. Existing construction, of course, provides our largest market, but when we consider sales resistance it becomes obvious that we should seek that part of existing construction faced with the problem of replacement or extensive remodeling of an existing unsatisfactory heating plant.

By comparison with new construction, the air distribution problem in connection with existing construction is not so simple, but by this statement I don't mean to imply that it is too difficult or impractical. An experienced air conditioning application engineer with a little ingenuity can figure out ways and means of installing a satisfactory air distribution system by modifying an existing warm air system, or replacing standing radiation with little or no difficulty.

Now, as to potential, house value



Gas air conditioning units are installed in all types of residences. Shown here are two installations, the one on the left at Marshall, Texas, and the other at St. Louis, Mo. In the case of the Marshall residence, there was no space within the existing building for equipment so a brick addition was made in the back to house air conditioner below and water cooling unit on top

A stately Washington, D. C., home and its gas-operated air conditioning installation are shown in the adjacent pictures. Homes of this type and so-called budget homes are in the wide bracket covered by gas units

A low-cost residence at El Centro, Calif., where gas air conditioning provides an ideal solution to the summer comfort problem. The problem

provides the best yardstick, and we place $7500 as the minimum house value in establishing our potential at the present time, whether it be new or existing construction. There is another very important factor affecting potential, and that is the degree of public acceptance. Regardless of how vast the market might be, if public acceptance stands at zero, then the potential will be mighty slim indeed.

Public Acceptance

Public acceptance really divides itself into three parts: idea, product, and price. To a degree, one-third of our job has been done; that is, the idea of air conditioning now has almost universal acceptance—desirable if it doesn't cost too much. We now have on our hands the job of establishing acceptance of product. Now by product, I don't mean just so much metal. I mean the utility of that product—what will it do for the customer? What are the benefits? This is the second stage of creating public acceptance—the one where creative selling comes into its own and reaches its highest stage of development if the final goal is to be attained.

When the third and final stage of public acceptance—price—has been achieved, then a wholly new method of selling must be instituted. That marks the transition period when we shift from creative selling to a straight merchandising program. However, from an air conditioning point of view, we are not now looking forward to the day of complete public acceptance. Our market is vast enough and our problem is big enough to cause all of our sales effort to be grooved along the lines of creative selling.

There is one point that I would like to establish in connection with our immediate opportunity, and that is that we should concern ourselves from a market and potential point of view with those people having the obvious ability to buy and operate "all year" residential air conditioning equipment, and don't think for a minute that when I say this we are limiting our market—instead we are preparing ourselves for a broader market.

Let me explain. There are literally thousands of people in the United States with the desire and the obvious ability to buy and operate residential air conditioning equipment. The act of selling these people will increase production, and, by so doing, decrease prices. Further, the act of selling these people will improve your selling technique to the point where you not only have decreased selling costs but increased coverage as well.

Now then, while these beneficial factors are at work, the great mass of people lying just below this immediate potential is beginning to have a desire for similar comfort by observation or through contact with the "man who lives on the hill." In other words, with all forces working together we will shortly find ourselves with decreased selling prices, decreased sales expense, increased coverage and increased potential.

Yes, very definitely the subject of gas air conditioning gives us something to be excited about. Now then what are we going to do about it? Excitement creates energy. Are we going to dissipate this energy by allowing it to escape through whatever channel it may elect—or shall we harness and guide it into those channels that we know will be most productive in the achievement of the results we desire? I hope your decision will be the latter, and, in this connection, and in all frankness, the procedure that I wish to suggest, because I believe it to be the best, is the plan adopted by my own company in the promotion and distribution of the Servel "all year" residential air conditioning equipment.

Gas Air Conditioning a Reality

First, let me say that gas residential air conditioning is now a reality. No longer need your minds nor ours be clouded with a lot of wishful thinking. Following a period of four years of intensive engineering research, and I

The new Servel all-year residential gas air conditioner—which is the result of nearly six years' ceaseless research

am serious about that, it isn't the statement of a copywriter, intended to glorify product, but a definite statement of fact—then came a period of "field test and research," a definite planned activity with installations in many different sections of the United States so that a first-hand experience was obtained with varying climatic conditions, varying living habits of people, varying construction practices in the residential field, a better knowledge of markets and potential, and, of course, a first-hand experience with the operating characteristics of the equipment under all these conditions. Out of this experience stands the fact that the equipment is thoroughly commercially practical—not perfect; that is unattainable—not perfected to the point we know it can be—but reliable from the point of view of utility, thus assuring you and your customers that we are beyond the guinea pig stage.

There are other considerations in connection with an air conditioning program just as important, if not more so, than product, and these considerations can be lumped under the general heading of "Distribution." However, to be more specific, they have to do with application engineering technique, selling plan, methods of installation, and service facilities. As a definite phase of your planned air conditioning activities, these things must be considered, and your organization evaluated in terms of ability—or lack of it—and a program of organization development should be adopted. As a background, of course, for your ultimate decision there need be a localized knowledge of markets and potential.

It is with all of these things in mind that we present for your consideration, individually, a plan of "sales test and research" wherein a limited number of units will be sold and installed on a controlled basis—and out of this experience a factual base can become a springboard for a sales campaign to immediately follow.

We are singularly fortunate with regard to our facilities upon entering into this new endeavor of air conditioning—and by "We," I mean both you, as the gas company, and we, as the manufacturer. We are fortunate in that we have the facilities and the ability to plan, regulate, and control this activity and, by so doing, reduce to a minimum the factor of human error that could, if uncontrolled, get us both into a lot of trouble. Other combinations of manufacture and distribution that I can think of have, as a prime factor of consideration, that of survival; and thus from scratch in the development of a new device they must obtain volume and a profit regardless of human error. In the planning and execution of those plans many enterprises floundered in the mire of human error and passed on into oblivion before they had a chance.

More and more signs like the one above at Beaumont, Texas, are appearing in the territory of the United Gas Corporation as the economy and convenience of gas air conditioning become known

Our opportunity in the air conditioning field is too rich to take chances with. From Servel's point of view our trade relationship with you is too fine a thing to tamper with. From your point of view, your public relationship, or customer relationship, is far too important for you to jeopardize. These are the reasons why I say we are singularly fortunate in that we do have the ability to control our entrance into this new activity by whatever basis of selectivity and limitation we may elect, and, out of the experience thus obtained, be fully armed and prepared for the big sales opportunity that lies ahead.

Gas air conditioning is rich in opportunity, and it must be a satisfying thought to realize that in the accomplishment of a selfish interest from a load-building standpoint, we are rendering a real public service—we are contributing to a very major extent to the comfort, health and happiness of our customers. We do have something to be excited about, but let us be certain that we get it under control and guided into its proper channels.

Charles V. McIntire Dies

CHARLES VERNON McINTIRE, chief engineer of the Semet-Solvay Engineering Corporation, New York, N. Y., died at his home in Short Hills, N. J., after a long illness. He was 55 years of age.

Mr. McIntire was a member of the American Gas Association, the Mechanical Engineering Society of America, the Summit Art Society and the Milburn Art Society.

G. J Heckendorn Is Dead

GEORGE J. HECKENDORN, gas distribution engineer of Public Service Company of Colorado, died June 1 following a three-day illness.

Mr. Heckendorn was born in Richland Center, Wisconsin, on January 24, 1899. His grade and high school education was obtained at Greeley, Colorado. During World War I, he saw overseas service in Motorcycle Company No. 322, A.E.F., from March, 1918, to August, 1919. He entered the University of Colorado in 1919, graduating in 1923, with a degree of Bachelor of Science in Mechanical Engineering.

Mr. Heckendorn joined Public Service Company of Colorado in July, 1923, working since November, 1923, in the gas engineering department. He was a recognized authority in the gas industry and was a member of the American Gas Association.

Can You Spare a Dime? . . . *It Costs Less Than That to Get the Market Facts**

Hall M. Henry

By HALL M. HENRY

Chairman, Market and Economic Research Committee

THE Market and Economic Research Committee is proceeding on the theory that the most help can come to the gas industry through each company doing those things which will throw light on its own individual conditions. Thus the committee has set forth factors which seem in need of study (if a company is interested in knowing what is happening) and has outlined one or more methods of analyzing these factors.

Factors That Need Analysis

First and by far the most important is a market analysis. Such an analysis would cover a complete appliance and fuel survey of every gas customer and homes not now served on gas company lines and will furnish each gas company with a complete picture of its own position in the fuel market. Furthermore, if such a survey is made not once but every two or three years the management will be kept informed as to fuel *trends*.

One gas company executive upon completion of his first market survey was so amazed at conditions uncovered that he refused to accept them as fact until the survey was repeated by a different group of survey workers on 50% of the customers only to find the same story. Another company stated that had it known through a previous survey the extent of the use of oil for kitchen heating which resulted in loss of cooking load it could have taken action eight years earlier than it did and as subsequent events have shown, could have saved a major part of this loss to oil.

Costs Are Not Prohibitive

It is astounding how few companies really know what their market opportunities are and it is even more incredible that companies will spend from $1 to $4 per year per customer on New Business and yet won't spend a thin dime per customer (this is a maximum and companies who have made a number of such surveys report survey costs as low as 2c per customer) for a market survey which will tell them whether there exists a market for the type of gas service they are asking their salesmen to sell—whether the rate will meet the market needs, whether the *appliance* is *suitable* for the market and whether competitive fuels are gaining and if so in what direction and for what reason.

It is not sufficient to say that just because your company is in the same section of the country as that of another company you both have the same market potentials. For instance, Company A by an actual survey of customers' appliances and fuels shows a tremendous market potential for gas for kitchen heating yet Company B sixty miles away has practically *no* kitchen heating market. Similarly Company B has a tremendous market for circulator type heating whereas Company A has practically no circulator heating yet a large central heating market.

Why is this so? The reason is unimportant and has to do with custom. What is vital is that through a market survey these companies were able to correct an early assumption that they had the *same market* potentials and by redesigning rates and obtaining and offering equipment suitable to the market potentials of their customers are on their way to recapturing a market now served by competitive fuels. Let's stop kidding ourselves that an appliance and fuel survey has no value just because it has been reported that some Sales Managers, who won't take the time and effort to get *Sales* Value as well as Managerial, Market and Rate Value out of appliance surveys, condemn them. There is ample evidence for those interested enough to investigate as to the Managerial and Sales Value of an Appliance and Fuel Survey which will satisfactorily refute any argument against the making of such a survey.

How To Make a Survey

The committee has set up a method for making an appliance survey. The procedure recommended has been used by some 50 gas companies and 100 electric companies varying in size from a few hundred customers to 100,000—and one large company with some 250,000 customers is now in process of using the method outlined. Some of these companies have made their second survey the first one being made three years earlier. The method with sample survey card, means of arranging data for analysis together with probable costs, is available from the American Gas Association.

To summarize the value of the appliance survey:

(1) If made periodically (preferably not more than three years apart) will form a basis for determining *load trends*.
(2) Will determine *extent* of competitive fuel inroads.
(3) *Nature* of competition.
(4) Where to *place sales* effort.
(5) *Type of equipment* best suited to meet competition.

*Report of the Market and Economic Research Committee, Residential Section, American Gas Association.

(6) Use in *rate* design.
(7) *Direct mail* prospect lists.
(8) *Information* on which to build *qualitative analysis*—such as list of customers with gas and competitive equipment ready or soon to become ready for replacement.
(9) Basis for *all phases* of a *sound* New Business program.

Other Useful Types of Studies

No. 1—The committee recommends where possible that a study be made of MCF or Revenue Trend by districts taking two different years—say 1935-1940 or others—for which the data is available on a comparative basis. The study can be made by meter routes where these have not been changed or by sections where meter routes cannot be utilized. Table 1 will show the gains and losses as determined by Company A. Such a study was quite helpful in determining improvements to the distribution system in addition to showing where more sale effort is needed to hold and increase sales.

By plotting this data on a map the management could clearly see the areas showing greatest gains and where future line extensions or greater sales efforts should be made.

No. 2—Revenue and M.C.F. studies by Rates or Classes.

The committee has found a surprisingly large number of companies who do not study the trend of their sales and revenues by Rates or Classes. The committee believes such a study is another means of keeping tab on what is happening and so recommends it. Chart No. 1 will show the type of information such a study discloses.

TABLE II

ANNUAL MCF PER APPLIANCE

	Company A	*Company B*
*Automatic Gas Water Heater	15.1	15.3
Gas Ranges (Replacements)	0.58	0.53
Gas Refrigerators	16.6	25.15
REVENUE LIFE DATA		
Automatic Water Heaters	*Company A*	*Company B*
Sold and Installed in 1931	100%	100%
% Sold in 1931 in full use in 1937	50%	65%
Partial Use	28%	20%
Discontinued	22%	15%

Note: By combining Revenue Life and Annual M.C.F. or Revenue less cost of gas we can evaluate economy of our Sales Effort.
*This includes new installation—and replacements of tank heaters and automatics.

Effect of Different Appliance Sales on Load Trends

The committee proposes to accumulate data which will show the effect of selling a particular appliance on the company's gas load, and what is the "revenue life" expectancy of such an appliance. For instance, if a company sells 1000 gas refrigerators, how many M.C.F. will these 1000 refrigerators use annually, or if the company sells 1000 water heaters, how many M.C.F. will be sold. But what is of equal importance, for how *many years* can the gas company expect these 1000 refrigerators and 1000 water heaters to be used. We are not here interested in the *physical life* but in the *revenue life*.

The committee believes that such a study could well be made by each company and a comparison of results with others might show whether rates—public relations, etc., are as effective as they should be in holding loads. The study would be made on each type of appliance and cover 12 months *before* and *after* consumption studies of customers bills—with customer interviews to insure that no other appliance or some other cause than the use of the appliance under study can account for the change in gas usage. For purpose of determining "revenue life" the sales records of say ten years back would be analyzed and customers interviewed to determine whether the appliance sold say 5 or 10 years ago is being used today. To such studies made in 1937 on water heaters sold in 1931 showed that 50% of these were still in full use in one company and 65% in another whereas 22% had been completely discontinued in one company and 16% in another. See Table II.

Value of Appliance Consumption and Revenue Life Studies

The committee believes such a study would serve as a basis for deciding how much money could be spent appropriately to promote different types of domestic loads.

It would serve as another means of evaluating the work of Sales Departments which is often difficult to do because of load losses which have been occurring and which have neutralized or more than offset sales efforts.

To assist management in selecting where to place greatest emphasis on sales since such a study will indicate the appliances which warrant the greatest expenditure because it will show those with longest probable revenue

TABLE 1

The following table shows type of data obtained by comparing consumption data by sections of a city for two different years:

SUMMARY OF COMPARISON OF M.C.F. CONSUMED FOR THE YEARS OF 1933 AND 1940

	1933	*1940*	*Increase or Decrease*	*% Change*
Section No. 1	52,607.1	55,896.7	3,289.6	6.3%
" " 2	98,122.2	102,119.9	3,997.7	4.0%
" " 3	37,595.7	38,199.0	603.3	1.7%
" " 4	253,036.8	278,282.6	25,245.8	10.0%
" " 5	74,948.4	76,166.4	1,218.0	1.5%
" " 6	151,167.0	168,099.9	16,932.9	11.2%
" " 7	20,582.4	64,991.2	44,408.8	222.0%
" " 8	9,258.3	9,900.2	641.9	7.0%
" " 9	63,145.8	70,399.2	7,253.4	11.5%
" " 10	43,721.0	47,251.7	3,530.7	8.0%
" " 11	8,304.2	10,208.8	1,904.6	23.0%
" " 12	138.0	582.2	444.2	321.0%

life and largest probable yearly revenue.

Such studies will also be useful in locating places where appliances are either not being used or used only partially, thereby forming a basis for recovery of lost loads.

Qualitative Studies: Reasons for change in gas usage and other factors.

The committee believes there have been far too few studies of customers' opinions of gas versus competitive fuels. Such a study of customer opinions called Qualitative differs from the quantitative analysis in that a qualitative study undertakes to find out *why* a thing is so—whereas a quantitative study tells *how many* and *what kind* is used. One is a physical count of the kinds of fuels and appliances in use—the other a probing as to the motives or opinions that influenced people to select one type of fuel or appliance over another. These qualitative studies to be of real value must be made by *each company.* What your customers think of your service—rates and product depends on how you treat them, how well *you* have explained *your rate* to them and on what kind of a sales job *your* own salesmen have done.

Your customers may think better or worse of you than customers in neighboring companies think of their gas company, so here again if you want the facts you will have to get them for your own company and not rely on some other company's study.

The committee believes qualitative studies should only be undertaken by people trained in sampling public opinion as the type of question and manner of asking are important in arriving at a correct public attitude.

These qualitative studies can of course be designed to sample customer opinion on most any phase of the gas business. The following will give some idea of what has been done:

Company A—Wanted to know what customers thought of gas for heating.

Here is what they discovered:

1. Customers thought a gas conversion burner cost two to three times as much as an oil burner—yet at that time the facts were just the opposite.
2. Customers thought gas would cost two to three times as much as oil as a fuel—yet gas was only 50% more expensive on fuel cost basis.
3. Customers using gas for heating did *not* know they had had a rate reduction.
4. Customers were willing to pay a reasonable premium for gas.

It was evident from this study that customers really didn't know anything about gas as a fuel—was it any wonder it was not being accepted.

Company B—Wanted to know reasons for change in usage.

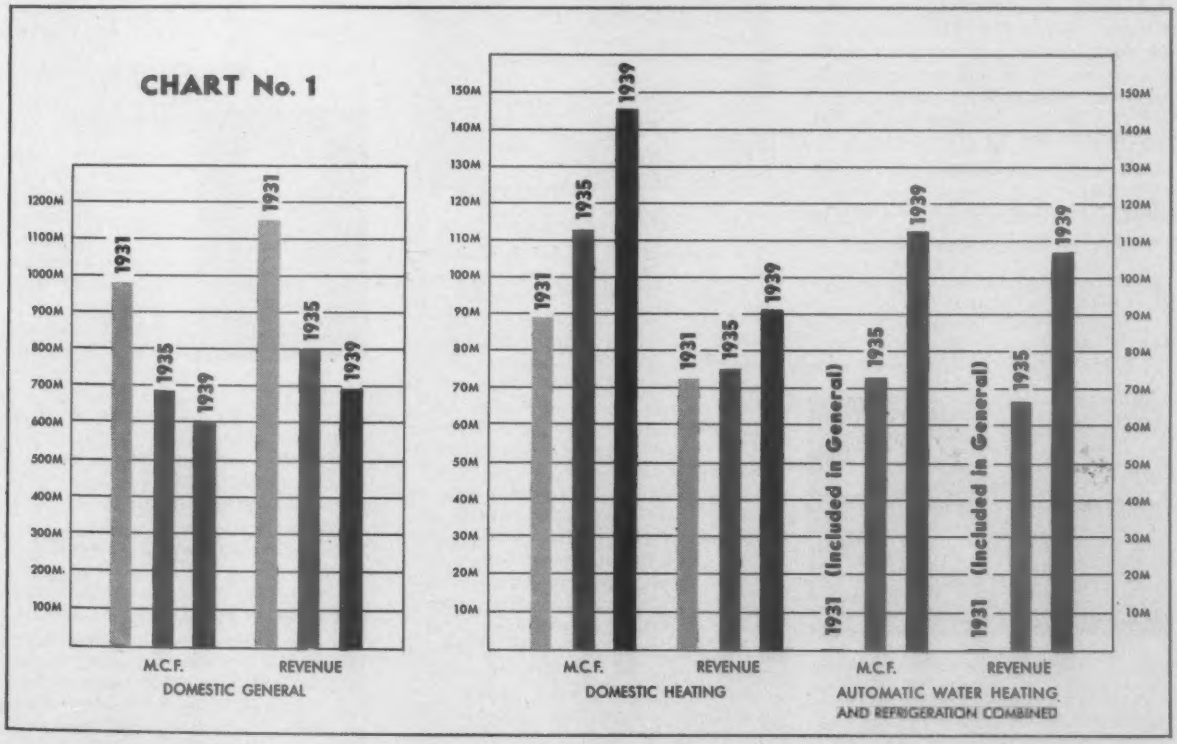
They found that a small percentage of their customers were accounting for approximately half of all the increase and decrease, or 11% of customers accounted for 51% of increase—whereas 6% of customers accounted for 48% of the decrease. Is this information valuable to know? Does it not suggest that we ought to pay attention to our major gas users.

The large bulk of customers were making a special effort to keep their gas bills low. The survey also showed how they were reducing gas usage.

Customers have little knowledge of the features and advantages of modern gas appliances.

Only 18% of customers knew there was a special rate for water heating—and less than 10% knew there was a

(Continued on page 288)



Personal AND OTHERWISE

Re-joins Roberts & Mander

W. T. Bradbury

WILLIAM T. BRADBURY recently returned to the scene of earlier activity as works manager of the Roberts & Mander Stove Company, Hatboro, Pa., makers of gas ranges, with whom he was formerly associated from 1935 until 1937. Prior to rejoining Roberts & Mander, Mr. Bradbury served as sales manager and director of engineering for the Newark Stove Company, Newark, Ohio.

Miss Boyle Gets New Home Service Post

BETTY BOYLE, who has been home service director of the Gas Service Company, Kansas City, Mo., for the past 13 years, on July 1 became home service director of the Wyandotte County Gas Company, in Kansas City, Kansas.

Miss Boyle takes the place of Mrs. Mildred Rittenhouse.

Life-Saving Achievement Wins McCarter Medal

JOHN STUART RUSSELL, Boston Consolidated Gas Company, Customers' Special Service Division, has been awarded a McCarter Medal and certificate by the American Gas Association for his splendid work in saving the life of a high school boy who was asphyxiated by gas. Presentation of the medal was made by Thomas F. Smith, assistant vice-president in charge of distribution.

John S. Russell, holding a McCarter medal and certificate, is congratulated by, left to right: Charles O'Reilly, superintendent of safety; Thomas F. Smith, assistant vice-president, and Edwin Hart

Mr. Russell administered the Schafer Prone Pressure method of resuscitation and was assisted by George Murphy, who applied the inhalator. Mr. Murphy has also received a McCarter certificate for his fine cooperation in effecting the rescue.

Mr. Russell was employed by the Boston Consolidated Gas Company seventeen years ago. He is a licensed gas fitter and for the past ten years has been a member of the Special Service group of the Distribution Department.

Mid-West Group Elects Rooke Vice-President

THOMAS E. ROOKE of the George D. Roper Corp., Omaha, Nebraska, was elected second vice-president of the Mid-West Gas Association at the last annual meeting of that body. It was erroneously stated in the June issue of the A. G. A. MONTHLY that Hal Gildersleeve had been elected to this post.

American Meter Honors Francis H. Payne

IN celebration of his fiftieth anniversary with American Meter Company, Francis H. Payne was tendered a surprise testimonial on June 20 at the Kahkwa Club in Erie, Pa. From the company's factories and sales offices all over the country, forty-six of its officers and members gathered to honor the man who is president of American Meter Company and has an unbroken record of half-a-century as manager of its Metric Metal Works.

In memory of the occasion a fine old antique grandfather's clock was given him, the presentation being made by Norton McKean, vice-president of the company and manager of its D. McDonald & Co. Works in Albany, N. Y. Mr. McKean himself has been with the company since 1913.

Mr. Payne was born into the oil industry on April 1, 1868, at Petroleum Center, Venango County, Pa., where his father, the late Calvin N. Payne, was engaged in drilling for oil, and built the first natural gas pipe line in America. His advent into the gas meter business was in July, 1891, when he became secretary and manager of the Metric Metal Company of Beaver Falls, Pa. Mr. Payne was made president of the American Meter Company in 1936.

Francis H. Payne (right) receives a token of his associates' esteem from Mr. McKean

In addition to his business responsibilities, Mr. Payne has taken an active interest in the welfare of the manufactured and natural gas industries, and in the civic affairs of his home community. He is a director of The American Gas Association, the Erie Chamber of Commerce, and the Erie County Health and Tuberculosis Association.

Harry W. Smith, Jr., Gets Selas Advertising Post

Harry W. Smith, Jr.

HARRY W. SMITH, JR., director of industrial publicity for the Industrial & Commercial Gas Section of the American Gas Association since October, 1938, assumed the post of advertising manager for The Selas Company, Philadelphia, Pa., specialists at precision jobs of industrial process heating, on July 1.

Mr. Smith head-ups advertising, sales promotion and publicity activities of The Selas Company's newly formed advertising department.

An engineering graduate (Case School of Applied Science 1930, Princeton University 1931) Mr. Smith has served with the Bell Telephone Laboratories and the A. G. A. Testing Laboratories both at Cleveland and Los Angeles as a research engineer. His experience in gas publicity began at the Cleveland Laboratories of the Association in 1932 when he became assistant to the

manager of publications. From 1936 to 1938 he was in the advertising department of The New Jersey Zinc Company, New York City. Since October, 1938, as director of industrial publicity for the Industrial and Commercial Gas Section of the American Gas Association, he has conducted an outstanding technical news service for the gas industry.

He is a member of Beta Theta Pi, Tau Beta Pi, Sigma Xi, Technical Publicity Association, and the National Industrial Advertisers Association.

J. B. Nealey Accepts War Dep't Post

J. B. Nealey

J. B. NEALEY, formerly director of industrial gas publicity for the American Gas Association, and more recently associated with the Priorities Division in the Office of Production Management, Washington, D. C., has accepted a position in the Office of the Chief of Ordnance in the War Department.

With the title of Senior Journalist and as technical adviser to General Lewis, Mr. Nealey's work is similar to that carried on for the American Gas Association for a number of years. One of his duties will be to write a book on Ordnance based on new developments in war material necessitated by modern warfare.

Meritorious Service Medal To Be Awarded

ATTENTION is called to the American Gas Association Meritorious Service Medal, supported by an endowment in memory of Walter R. Addicks, late senior vice-president of the Consolidated Gas Company of New York.

Consisting of a beautiful gold medal, button and certificate, this award by the Executive Board is the gas industry's official recognition of the gas company employee who has performed the most meritorious deed during the year. It is awarded for meritorious and conspicuous judgment, intelligence or bravery in saving human life either in the plant or works of any gas undertaking or having to do with the handling of the materials of manufacture or of the products manufactured or distributed. It is available to an employee of any manufactured gas company or natural gas company or manufacturer company member of the Association, domestic or foreign.

To qualify for the Medal, to be presented at the Convention of the Association in Atlantic City next October, the deed must have been performed during the period beginning July 1, 1940, and ending June 30, 1941. Application for the 1941 Award should be sent to Association Headquarters on or before August 1, 1941. Forms for the application will be gladly furnished upon request.

Fellows Named Houston Advertising Manager

KENNETH FELLOWS has been appointed advertising manager of the Houston Natural Gas Corporation, Houston, Texas, according to an announcement June 16 by President Frank C. Smith. Mr. Fellows was formerly owner and publisher of *The Alice Echo*, a South Texas weekly newspaper. He fills a vacancy of two years, created when Bill Tipton joined the Franke-Wilkinson-Schiwetz advertising agency.

Industrial Research Group Elects Dr. Hainsworth

Dr. Hainsworth

AT the third annual meeting of the Institute held in Pittsburgh, Pa., Dr. W. R. Hainsworth, vice-president in charge of research for Servel, Inc., was elected to a three-year term as a member of the executive committee of the Industrial Research Institute.

The Industrial Research Institute, an affiliate of the National Research Council, was organized three years ago to provide an agency for the study of research organization and management in industry, rather than technical problems.

Henry Woods' Book Tells How to Get "Profitable Publicity"

Henry F. Woods, Jr.

HENRY F. WOODS, JR., director of publicity, McCann-Erickson, Inc., New York, is the author of "Profitable Publicity" (How To Do It—How To Get It) published at $2.50 by Dorset House, Inc., 55 West 42nd Street, New York. The book has received excellent review comment and promises to be a selling success.

Since the inception of the A. G. A. national advertising program five years ago Mr. Woods, with the aid of his competent assistant, Miss Ruth Dorris, has directed the highly effective publicity campaign which has been a component part of the advertising effort. Some idea of Mr. Woods' publicity ability may be gained from the fact that during this five-year period, in connection with the A. G. A. campaign alone, some 29,000 stories have appeared in newspapers with an aggregate circulation of 278 million copies. Furthermore, he has been instrumental in placing 111 illustrated articles in magazines reaching 189 million readers. Each story and article published has made favorable mention of gas fuel and modern gas appliances.

In writing his book Mr. Woods has drawn on 15 years of experience in handling every kind and type of publicity. Too many books on publicity have been written to satisfy the vanities of their authors. Not so with the book by Mr. Woods. It contains no personal build-up. His book is a practical, down-to-earth treatise devoted exclusively to outlining successful time-tested methods for the aid of all who want and need to make use of publicity as an effective medium to bring their business, their products, their ideas and themselves to the attention of the public.

Handling his subject from the point of view of one who wishes to make a sincerely practical and useful contribution to his profession, Mr. Woods has produced a book which should definitely appeal to all persons who envision publicity as a vital and dynamic force. Since he has been so successful in publicizing the advantages of gas fuel and modern gas appliances, there is a special reason why his book should be on the desks of publicity and advertising men and women in the gas industry—and in gas company libraries as well.

Mr. Woods is a credit to the publicity profession and his book is a noteworthy contribution to the highest standards of that profession.

AFFILIATED ASSOCIATION *Activities*

Manufacturers Pledge Full Support to Defense at A.G.A.E.M. Convention

R. G. Logue, chairman of the convention program committee, addressing the opening general session. On the platform are, left to right: Ordean Rockey, field secretary for the mayor of Los Angeles; W. E. Derwent, A.G.A.E.M. president, and C. W. Berghorn, A.G.A.E.M. managing director

PLEDGING the "fullest measure of support to the National Administration" in its unlimited emergency, the Association of Gas Appliance and Equipment Manufacturers keyed its sixth annual convention to the importance of tying in with defense efforts. The event was held June 3-6, at the Ambassador Hotel, Los Angeles, California.

"Business as usual is out until we are over the present economic hump," W. E. Derwent, A.G.A.E.M. president, stated in an address delivered at the Wednesday morning, June 4, general session. "We are witnessing the birth of a new industry which will build payrolls. I feel confident that we are making definite progress in creating payrolls in an increasing volume. We have an opportunity to be of great service to our nation and our people."

Ordean Rockey, field secretary for Mayor Fletcher Bowron of Los Angeles, welcomed the convention delegates at the opening session. R. A. Hornby, president of the Pacific Coast Gas Association, stated that the defense adjustment would not get the industry down, but only make them dig in deeper and work harder. W. R. Smith, chairman of the P. C. G. A. manufacturers section, reviewed West Coast activities.

George Green, president of the National Retail Hardware Association, stressed the opportunities open to gas appliance and equipment manufacturers through hardware dealers. George E. Frazer, A.G.A.E.M. counsel, gave a brief account of the defense council activities.

C. E. "Deke" Houlgate, special representative of the American Gas Association, in a review of the Hollywood activities in promoting gas appliances, said: "The gas appliance manufacturers have kept far ahead of any motion picture ingenuity regarding design of kitchens and kitchen equipment. No one in Hollywood has had to show you how to turn out a beautiful gas range or refrigerator. You manufacturers, not Hollywood, have put the glamour and oomph in the kitchen. Perhaps that is why we can point with pride to the fact that over a five-year period 202 all-gas kitchens have been flashed on the screen."

Louis Ruthenburg, president of Servel, Inc., presented an account of the establishment of an "Institute of Gas Technology," which is reported elsewhere in this issue of the MONTHLY.

June 5, following the general sessions, was primarily devoted to social activities, including a golf tournament, a tour of various places of interest about the city, a cocktail party and the president's dinner. A trip to Catalina Island was scheduled for Friday, June 6.

Guests at the president's dinner included Bob Hope, famous motion picture and radio comedian and Don Wilson, well known radio announcer.

All officers were reelected. W. E. Derwent, vice-president of Geo. D. Roper Corp., is again president; W. F. Rockwell, president of Pittsburgh Equitable Meter Co., first vice-president; Lyle C. Harvey, vice-president of the Bryant Heater Co., second vice-president; and John A. Fry, president of Detroit-Michigan Stove Co., treasurer.

Mid-West Gas School in September

THE twenty-first annual gas school and conference sponsored by the Mid-West Gas Association will be held at Ames, Iowa, September 8-10. A comprehensive program for this event was outlined June 9 at a meeting of the Executive Committee headed by H. K. Wrench, Minneapolis Gas Light Company.

Dates of the conference have been advanced to the week prior to the opening of Iowa State College, making possible the use of additional facilities on the campus.

The conference is divided as follows: Meter Section, J. C. Clarke, chairman; Utilization Section, E. E. Miller, chairman; Production, M. K. Wrench, chairman; and Distribution, George C. Holmes, chairman. Eugene O. Olson, Iowa State College, is chairman of the Arrangements Committee.

The Meter Section plans to include in its course actual bench work enabling approximately 50 men to get actual experience in diaphragming and repairing meters under capable instructors. All sections will give particular attention to the problems raised by the national emergency.

Attendance the past few years has averaged approximately 250 and this year it is expected to jump to at least 350.

Michigan Gas Association

CAPTAIN HENRY FINK, assistant general manager of the Michigan Consolidated Gas Company, Detroit, was elected president of the Michigan Gas Association at the close of the association's annual convention at Mackinac Island, July 3.

Mid-Southeastern Gas Association

DURING the recent meeting of the officers and directors of the Mid-Southeastern Gas Association, the following committees were appointed:

Program Committee: J. R. A. Hobson, Chairman, D. K. Taylor, Edward W. Ruggles.

Membership Committee: James M. Purcell, Chairman, E. V. Boyer, J. L. C. Black, F. C. Taylor.

Entertainment Committee: Ralph H. Fry, Chairman, S. L. Duckett, Luther Diggs.

Nominating Committee: C. W. Haner, Chairman, J. S. Rider, E. O. Werba.

The Program Committee has decided that the dates of November 13 and 14 would be most suitable for the annual meeting of the Association and the Gas Plant Operators Institute to be held at State College.

Public Utility Advertising Men Make "Better Copy" Awards

THE annual convention of the Public Utilities Advertising Association at the Hotel Statler, Boston, Mass., on May 26 and 27 was attended by approximately 200 persons. The convention was held in conjunction with the annual meeting of the Advertising Federation of America, of which the public utility group is an important department.

New officers elected at the Convention are as follows: President—Al C. Joy, Pacific Gas & Electric Co., San Francisco; First Vice-president—Clara Zillessen, Philadelphia Electric Company, Philadelphia; Second Vice-president—Thomas H. Spain, Public Service Electric and Gas Company, Newark, N. J.; Third Vice-president—J. V. Macdonald, Boston Edison Co., Boston; Secretary—E. N. Pope, Carolina Power & Light Co., Raleigh, N. C.; Treasurer—Dale Remington, Wisconsin Public Service Corp., Green Bay, Wisconsin.

The results of the Association's annual "Better Copy Contest," which is the oldest advertising competition in existence today, were of paramount interest to the P.U.A.A. delegates. Clara H. Zillessen, Philadelphia Electric Company, and chairman of the contest for 1941, announced the awards. Following are some of the major awards of interest to gas companies:

Public Relations Advertising

National Award—Consolidated Edison Company of New York—for advertisement with headline "It's All Done with Pennies."

Regional Awards—Bridgeport Gas Light Company—for advertisement with headline "Your Gas Service Has Never Failed." Lone Star Gas Co., Dallas, Texas, for advertisement with headline "Yes Sir, He's Tops!" Cincinnati Gas and Electric Co. for advertisement with headline "We'll Take 1940 for Ours!"

Gas Load Building Advertising

National Award—Public Service Company of Northern Illinois, for advertisement with headline "So You're Going To Build a Home!"

Regional Awards—Wisconsin Public Service Corp., for advertisement with headline "How Proud Are You of Your Roasts?" Central Hudson Gas & Electric Corp., for advertisement with headline "The Soap Costs as Much as the Hot Water." Providence Gas Company for advertisement with headline "Try Scallops—Broiled." Pacific Gas & Electric Co. for advertisement with headline "Keeps Us in Hot Water." Lone Star Gas System, Dallas, Texas, for advertisement with headline "Children Live in a Different World." New Orleans Public Service Inc.—for advertisement with headline "Automatic Gas Water Heating Saves Time and Temper."

Gas Merchandise Advertising

National Award—Dallas Gas Company, Dallas, Texas, for advertisement with headline "Hot Water and Plenty of It for the Whole Family."

Regional Awards—The Bridgeport Gas Light Co., Bridgeport, Conn., for advertisement with headline "$25 for Your Old Ice Box." Atlanta Gas Light Co. for advertisement with headline "Even Last Winter $55.87 Heated This Home with Gas Floor Furnaces." Rochester Gas & Electric Corp. for advertisement with headline "Save $20 with This Hit Parade Special." Southern California Gas Co., Los Angeles, for advertisement with headline "Order a Furnace in August? Don't Be Silly!" Cincinnati Gas and Electric Co. for advertisement with headline "New—Sensational—Heatzone Convertor." Sioux City Gas & Electric Co., Sioux City, Iowa, for advertisement with headline "Experience Proves Automatic Hot Water *Is* Cheap!"

CONVENTION CALENDAR

AUGUST

Aug. 18-20 Appalachian Gas Measurement Short Course
Morgantown, W. Va.

26-29 National Association of Railroad and Utilities Commissioners
St. Paul Hotel, St. Paul, Minn.

SEPTEMBER

Sept. 8-10 Mid-West Gas School and Conference
Ames, Iowa.

10-12 Pacific Coast Gas Association Annual Convention
Del Monte, Calif.

11-13 American Trade Association Executives
Hershey, Pa.

week of 28 American Transit Association
Chalfonte-Haddon Hall, Atlantic City.

OCTOBER

Oct. 2-3 West Virginia Oil & Natural Gas Association
Clarksburg, W. Va.

6-10 National Safety Congress and Exposition
Stevens Hotel, Chicago, Ill.

12-15 American Society of Mechanical Engineers
Louisville, Ky.

20-22 A. G. A. Annual Convention
Atlantic City, N. J.

NOVEMBER

Nov. 13-14 Mid-Southeastern Gas Association
North Carolina State College, North Carolina

DECEMBER

Dec. 1-2 National Industrial Council
Waldorf Astoria Hotel, New York, N. Y.

1-5 American Society of Mechanical Engineers Annual Meeting
New York, N. Y.

House Heating Council Elects Officers

Henry Rohrs

HENRY ROHRS, Elizabethtown Consolidated Gas Company, Elizabeth, N. J., was elected chairman of the Metropolitan House Heating and Air Conditioning Council at a joint meeting with the New England Gas Association at Bridgeport, Conn., May 21. William B. Hewson, The Brooklyn Union Gas Company, was elected vice-chairman, and Warren F. Ward, Rockland Light and Power Co., Middletown, N. Y., was named secretary-treasurer.

Election of officers took place at a regular meeting of the council prior to the joint luncheon session with the New England association. George S. Hawley, president, Bridgeport Gas Light Company, and vice-president, American Gas Association, presided at the luncheon during which low cost housing and national defense were discussed.

A. C. Bredahl, chief of the mechanical and utilities section, United States Housing Authority, Washington, D. C., opened the symposium with an interesting paper on "The Part Gas Utilities Should Play in Defense and Low Cost Housing." Frank H. Trembly, Jr., The Philadelphia Gas Works Co., spoke on the same subject from the gas company viewpoint. A report on the experience of The Hartford Gas Company in securing gas business in the important defense housing projects now being built in Hartford was presented by B. H. Dingley, Jr., manager of sales.

Accounting SECTION

E. N. KELLER, *Chairman*
LYMAN L. DYER, *Vice-Chairman*
O. W. BREWER, *Secretary*

The Relation of Residential Deposits to Uncollectible Accounts

By HAROLD F. QUAD

Public Service Electric and Gas Company, Newark, New Jersey

TEN years ago, as presented in the proceedings of the Fifty-fourth Convention of the National Electric Light Association in 1931, a survey of sixty-two companies showed that the range of percentage of deposits to total customers was extreme. At that time the low was 3% and the high 100%. Twenty-four of the reporting companies were above 50%. These companies served from 7,000 to 930.000 customers, and in all fairness it should be reported that the lower percentages were found in the larger companies. The over-all average of this comprehensive group ten years ago was 38%. Last year, as reported at the Annual Congress of the National Association of Credit Men, nine representative companies reported an average percentage of a little less than 5%.

This ten years' comparison gives definite indication of the progress made by refunding programs toward a liberalized policy. Of course, 1931 was a "depression" year, and conditions have changed to a marked degree since then, but there can be little question that the trend has been in the right direction.

Despite this trend, many companies hesitate to review thoroughly the deposit policy and liberalize to a sufficient degree. This is indicated by the result of a survey reported last year in the minutes of the Public Utilities Group of the National Association of Credit Men. Thirty-five companies reported on the direct question:

"What effect would the discontinuance of customers' deposits on residential accounts have on delinquent accounts and/or bad debt loss?"

Nineteen companies reported to the effect bad debt loss would increase. One company stated that it would save interest and offset bad debt loss, and one company estimated an expenditure of $2.00 to protect a possible $1.00 bad debt loss. Fourteen companies took a middle course, which can be interpreted as "We don't know."

Responsibility of the Customers' Accounting Group

It is acknowledged, I think, that deposit policy is best determined when it is tailored to meet the needs of individual companies. The relation of residential deposits to uncollectible accounts, the subject of this paper, is a very important factor in helping to determine the deposit policy of any company. Since their beginning, customers' deposits have been regarded as Uncollectible Bill Insurance. Here's where the accountants add one more part to their ever-increasing list of roles on the stage of our business—that of insurance actuary. It becomes your job to establish experience tables for your company, to prove to management that the premium you are paying for this "insurance" may be too high, and that adjustment of the deposit policy is in order. As pointed out by Mr. Schultz at Chicago in 1938, the tangible items of expense entering the cost of carrying deposits can be readily determined. Specifically, they include, in order of importance:

1. Interest paid, which appears on the general books as an accrual.
2. Clerical expense, best determined through time studies of receiving, filing, applying, refunding, balancing, auditing, and perhaps a proportion of the expense of Customer History Records.
3. Tax expense, if local conditions make it necessary.

Naturally, the reason for obtaining cost figures is to determine whether or not the deposit is economically warranted. If the cost is in excess of the insurance value in preventing loss, the deposit policy of your company is not economically sound. An example is quoted from the analysis made by the Consumers Gas Company in Reading, Pennsylvania:

Gain	
Estimated Savings (Clerical Labor)	$2,000
Reduction in State Loans Tax	300
Interest on $60,000 at 6%	3,600
	$5,900
Loss	
An *estimated* increase in Bad Debt Losses (20% of Gross Uncollectibles)	$1,120
Net Savings	$4,780

(I would like to refer here to a letter recently received from Mr. Schultz: "Referring to your letter of March 31st, time and experience has indicated no change in our deposit policy. We have adhered to this liberal policy that is ever since it was instituted in 1934 and I submit the following figures which seem to indicate that the uncollectible bill loss is at least on a par or under many utilities who take deposits promiscuously. The year 1938 was 0.259%, 1939 0.232% and 1940 0.243%. It is an immense satisfaction and a great pleasure that we are able to do business with our customers on a credit basis the same as any other mercantile establishment. At the same time the elimination of this constant request for deposits from the customer has prevented much irritation and friction and has immeasurably promoted better customer relations." That I think we are perfectly at liberty to consider along with costs because mercantile establishments do establish good will on a monetary basis.)

Bad Debt Loss

Analysis shows that the application of deposits to bad debts, with a 35% deposit ratio, does not reduce losses beyond 20%. In effect, this may not be a completely accurate picture, because there never will be any method of determining how many bad debts were charged to Uncollectible accounts only because customers were conscious that a deposit existed, and therefore permitted a final bill to accumulate. It is not "wishful thinking" to state that the entire 20% reduction of bad debt losses through application of deposits may not have been necessary, *because accounts would have been paid if the deposit had not existed.* This thought is substantiated by actual experience in those companies where management has at least experimented with the problem by withdrawing or reducing residential deposit requirements. Last year, at Detroit, John Williams presented the results of an extensive refunding program by Niagara-Hudson as follows. I quote:

"Our deposit costs were about $90,000 per year and the costs of accounting and handling were substantial. While it seemed *reasonable to expect* that the uncollectible bill record would be adversely affected, we felt that the savings to be made would more than outweigh this adverse effect, and that an appreciable net saving would result if

Presented before A. G. A.-E. E. I. National Accounting Conference, Cincinnatti, Ohio, April 7-8, 1941.

the bulk of our residence deposits was refunded. Where the job has been completed, our deposit coverage on residential accounts now averages about 5%.

"Needless to say, our customers were pleased at our demonstration of confidence in them, and the many commendations we have received would have gone far toward compensating for the added losses we had expected. *The surprising part is that so far our uncollectible bills have not increased* at all."

To this experience I would like to add that of one of our own district offices, serving approximately 75,000 accounts. With the first of last year, this district discontinued the practice of accepting residential deposits. Reporting on one year's experience, uncollectible bill losses have not increased to any appreciable extent. Certainly, better times are partially responsible for this improvement, but it would seem that a real increase in loss might have been anticipated. One year's experience is a good basis for judging results, as our own analysis proves that about 65% of bad debt losses are caused by customers who have used service for less than one year. I feel certain that other companies could report the same experience.

Another factor of importance when considering the economies of the deposit question is the position of a company regarding the financing of a refund program, or the necessity for using deposit money in operation. In both instances, the primary consideration is the cost of "new money." In 1935 one large utility refunded all deposits to customers who had maintained a good payment record for eighteen months. The same accounts were checked twenty-one months later and it was found that bad debt loss was 40% below the amount which would have been paid in interest alone at 6%.

The responsibility of the accountant is evident. He has a very important part in the determination of deposit policy. It is his function to present to management the financial relationship between deposits and bad debt losses. It may be established that the deposit is a "poor relation" financially, and, like most poor relations, is costing you money to support.

Responsibility of the Credit and Collection Groups

I have often heard collection representatives remark that they would rather handle an account for collection when it is not covered by deposit. This is understandable, as the customer is often under the impression that his limit of credit is not one, two or three months, but is dependent upon the amount of his deposit. No matter how logical the reasons advanced by a collector, this customer's conviction is often a difficult one to combat.

It is the administration of a predetermined deposit policy, and the administration of subsequent collection treatment, which eventually decides the question of deposits for management. After the accountant has submitted his analysis of costs in relation to the advantages of obtaining customers' deposits, the next step is a complete and careful review of credit and collection treatment of customers' accounts.

Prior to "depression" years there was an evident attitude among utilities that the credit and collection activities of the business were more or less routine matters. There were excellent reasons for this attitude—so much had to be done to build load; to increase public acceptance of electricity and gas; to complete sufficient generating and manufacturing capacity; to find new capital; to account for income and expenditures. With all available time and energy devoted to such important fundamentals, credit and collection policies and procedures were relegated to the background, comparatively speaking.

Then came the disastrous financial years of 1930 to 1933. It was found that credit and collection problems and customer credit relations assumed front rank importance. The reason for reminding you of the importance of the collection supervisor is to point out his place in any analysis of policy.

It must be acknowledged and recognized that our own industry and its policies cannot be as flexible as the individual operating the corner furniture store. However, within limits controlled principally by regulatory bodies, a certain flexibility is practicable. It is the responsibility of the credit and collection group to *recognize the credit factors which are predominant this year and this month.* To interpret those factors for application to his own activities is the credit man's constant function.

Specifically, the deposit requirements of your company are subject to review in the light of present credit conditions. This year, this month, commercial, industrial and individual credit is feeling the impact of billions of dollars in defense contracts. Isn't it logical to assume that our credit policies should now be reviewed and altered to meet the situation?

Responsibility of the Customer Relations Group

Before discussing the responsibility of the customer relations group I would like to read two letters from our own customers regarding their attitude:

"Gentlemen: I received your check and want to thank you very kindly for same. It seems one would always feel safe in doing business with so fair a business company as the Public Service Electric & Gas Company. Here's hoping our future dealings will be as good as they have been in the past."

"Gentlemen: Received your check in regard to my deposit with interest, ($11.40) about two months ago. Have cashed it as it arrived at just the opportune time but still haven't acknowledged your letter. I do appreciate it very much and it was very nice. Enclosed find original receipt as requested."

In most instances, our own utility is the only company in a given area which has the right to serve electricity and gas. It is one function of the customer relations' executive to subordinate the idea of our "right" to do business, and to replace it with outstanding service to customers.

The "right" of public utilities to require a reasonable deposit in advance of supplying service is well established. It has been said that a liberalized policy should be approached with hesitancy, lest that right be abrogated. It would seem that such an attitude defeats its own purpose, because it is practically an admission that deposits might be retained only to retain the questionable "right" to require them.

The customer relations' executive, or any other executive who is customer relations conscious, must do everything possible to defeat the policy of requiring deposits because it is our "right" to do so. There are records of court cases to decide the legality of the procedure of requiring deposits. In practically all cases they have been settled in favor of the Utility, but sound business judgment demands that such "right" should not be made the basis for requesting deposits.

Guarantee Practice Loses Friends

No discussion of customer relations responsibility would be complete without a brief mention of our old friend, the guarantor. Accepting the guarantee of payment from a friend or associate of the credit applicant is practically equivalent to the end of good relations with the guarantor. It is encouraging to note that most companies discourage the practice.

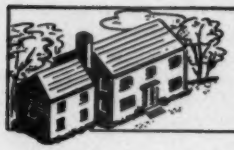
In general, customer relations responsibility includes an attempt to "feel the pulse" of public opinion, diagnose the illness, and recommend a remedy. Strange as it may seem, it has been my experience that the vast majority of our customers are not the least bit interested in our practices and pro-

(Continued on page 281)

A.G.A. Offers Accident Prevention Award

ON the recommendation of the Accident Prevention Committee, the Executive Board of the Association has made provision for the issuance of a Merit Award Certificate for any member gas company or division thereof which has completed one million or more consecutive man-hours without a disabling injury accident.

The Accident Prevention Committee has prepared an attractive Award Certificate, together with rules and regulations for this Merit Award, which will be available equally to small or large companies, or divisions thereof. The Award Certificates will be presented by the president of the Association to the presidents of the winning companies at the annual convention of the Association. Further information may be received by addressing the Accident Prevention Committee, Association Headquarters.



Residential SECTION

R. J. Rutherford, *Chairman*
E. J. Boyer, *Vice-Chairman*
J. W West, Jr., *Secretary*

Residential Gas Sales Program for New Year Is Responsive to Industry's Needs

By E. J. Boyer*

Incoming Chairman, Residential Section

SEVERAL factors have been considered in laying out plans of the Residential Section for the coming year. The most important is the condition of the country at the present time in regard to its defense program which is causing some readjustment of production, distribution and sales activities.

The ability of the appliance manufacturers to supply dealers is of particular concern during this period. The feeling of the Residential Section is that, even if domestic appliances are not immediately available to meet the *entire needs* of our domestic markets, the gas industry should continue to tell the story of modern gas service to its customers and prospects because of the increased home building program developing in all parts of the country, and the fact that a large proportion of our present customers and prospects will be enjoying increased incomes during the immediate future. The entire program is laid out in such fashion that it can be adjusted or altered to meet unforeseen situations.

After most careful consideration, the Section plans to continue each of its present committees during the coming year, with the exception of the possibility that the Community Development Committee may become a general committee of the Association rather than a part of the Residential Section. Final recommendations from that committee on this point have not yet been received. It is the feeling of some members of the committee, however, that the work of this committee is largely a matter of management policy and that the sales results are so indirect that it might operate more effectively if made a general committee of the association.

CP Range Program

The Domestic Range Committee plans to continue the operation of the Ranger Club, which has proved so successful during the present year, with certain modifications and improvements which it is expected will make the CP range program even more successful during the coming year.

One hundred and thirty-two gas companies having 8,700,000 meters are now participating in this club and competing for the numerous cash awards and other prizes offered to outstanding CP range salesmen. The National Sales Contest inaugurated this year for the sale of CP ranges during March, April and May has greatly stimulated the sale of CP ranges. The committee will recommend that a similar contest be inaugurated by the manufacturers during the Fall of 1941 to further stimulate the sale of CP ranges.

Mr. Boyer's article describing the program of the Residential Gas Section for the coming Association year contains material originally presented at a meeting of the A. G. A. Sales Council in Cleveland, May 21.

Three steps will be taken: First to insure greater local publicity to the outstanding CP range salesmen. Second to simplify the scheme of awarding CP pins so as to permit more and larger cash awards, and third to persuade the manufacturers of CP ranges to develop greater CP range sales by their dealer distributors.

The committee plans to use the services of its CP State Managers to bring about this latter result.

The Residential Section is very emphatic in the feeling that even if gas ranges as a whole are available in reduced quantities in the future, every gas utility and the American Gas Association should continue unabated their promotion of CP range sales as representing the ultimate in modern gas cooking equipment. CP range sales during the first quarter of 1941 were 80% greater than during the same period of 1940. This no doubt was due in part to the greater earning power of many of our customers and prospects. Certainly this earning power can be expected to increase further in the future.

Although there has been no reduction in the manufacture of gas refrigerators to date, there has been a tremendous increase in the demand for and sale of gas refrigerators during the past three months. Barring unforeseen developments, the Refrigeration Committee plans to continue its year-'round sales campaign and sales contest to further stimulate the sale of gas refrigerators during the coming year. The committee will also analyze the sales results of specialties' crews in comparison with those doing general appliance selling, for the purpose of making suitable recommendations to the industry on this subject. It will continue the publication of reports on effective methods of selling gas refrigerators to apartment house customers as well as to the replacement market.

Water Heating

The present Water Heating Committee, jointly representative of the water heating manufacturers and all gas utilities, has tentatively agreed upon a set of Certified Performance requirements for automatic gas water heaters, but general conditions have made it impractical to inaugurate a national sales promotion program on this subject.

The Water Heating Committee will continue to hold this program pending application, and in the meanwhile will issue bulletins and other material to assist member gas companies in educating the customer on the need and value of automatic gas water heating service.

Program of House Heating Committee

One of the most important phases of the work projected for the House Heating Committee for our 1942 Association year will be the promotion of a national program for house heating equipment analagous to the Certified Performance Range program. Increased building of new homes and projected building of new natural gas pipeline systems, curtailment of some fuels now used for house heating purposes as a defense act, will give great acceleration to the use of gas for house heating purposes during the next few years. The growth of this vital load upon a permanent basis should be a paramount issue for our industry.

The need of our industry for the development and promotion of such a national program will be discussed at greater length and in further detail by J. G. Tooker, chairman of the House Heating and Winter Air Conditioning Committee, and W. L. Seelbach, chairman of the House Heating Division of the Manufacturers Association, in the next issue of the MONTHLY.

* Sales manager, Minneapolis Gas Light Co., Minneapolis, Minn.

Home Service

The present plan for holding regional home service meetings is functioning in a satisfactory manner, and it is the aim of the committee to continue along this line. Consideration is being given to the improvement of home service records and reports so as to tie them in more effectively with the sales and service of the department.

A great deal of work has been done to develop the most effective presentation of CP ranges to our customers. More work will be done along this line to apply to the dealers as well as to the utilities.

This committee is also working on ideas to further the promotion of the importance of adequate hot water service. As work progresses on these ideas, it will be sent out to members in bulletin form.

The committee is working hand in hand in the national defense program with respect to the national program on foods and nutrition, and as time goes on no doubt this phase of the work will be more important in all communities.

The committee will summarize the results of surveys made by many companies to show the reaction of the users of CP ranges, for the guidance of the Promotional Committee and of the Requirements Committees of the CP range program.

Window and Store Display Committee

This committee will continue the preparation and publication of the quarterly Window and Store Display bulletins which are such a valued service of the Association. Attention will be devoted to effective store display layouts as well as to appliance displays. The subject of "Dealer Displays" will also be covered more comprehensively than has been done in the past.

Special Promotional Exhibits and Activities

The committee on this subject will collect information and illustrations of various special promotional exhibits of gas companies in local fairs, food shows and other movements, which will be published in the bulletin of the Window and Store Display Committee.

Appliance Financing Committee

This committee is now completing a summary of the present appliance financing plans of a large number of typical gas companies. During the next year it will keep in touch with the general trends in installment selling, as a result of present business conditions, and will keep member companies informed of these trends by means of a series of letters or bulletins.

Marketing and Economic Research Committee

This committee will encourage gas companies to conduct their own market studies, by giving examples of how this has been done economically and effectively by a number of companies, and by pointing out the value and need of such surveys. This very important subject will be discussed by Hall M. Henry, chairman of the committee at the Executive Conference.

Sales and Service Relations Committee

This committee has laid out a five-point program, each step of which is planned to develop more effective relations and cooperation between the sales and service departments of the gas companies. The effect of the character of servicing rendered on gas refrigerators will be compared with the sales of gas refrigerators by dealers as well as gas companies. Definite methods of insuring cooperation between sales and service departments will be publicized.

The progress of cooperative servicing arrangements between dealers and gas companies will be studied. The effects of appliance gadgets on the sales and servicing of gas appliances will be explored. The use of servicing men as sources of prospects will be developed.

Committee for Improving Domestic Gas Appliances

This committee which has had charge of the preparation of Certified Performance Range requirements, and of the Certified Performance Water Heating, now pending application, will continue its functions in these fields.

Housing and Realty Projects Committee

This committee which has maintained very helpful contact with the various government Bureaus active in housing projects, both defense and otherwise, will continue its relations with these bureaus, to insure the full consideration of gas appliances and gas services in future projects.

Home Appliance Planning Bureau

The Home Appliance Planning Bureau operated by the secretary and assistant secretary of the Section will continue its work of promoting the use of gas and gas appliances among the architectural and building professions through the use of broadsides, pamphlets, booklets and field trips to member gas companies, to assist them in their local work with architects and builders. With the prospect of 630,000 new homes being built in 1941 the work of this bureau assumes even greater importance than during the past year.

Gas Heating Exhibit

One additional activity must be added for the year 1942, namely a Gas Heating Exhibit at the Seventh International Heating and Ventilating Exposition, to be held in the city of Philadelphia. This exposition is held every two years. A very effective unified exhibit of gas heating equipment was sponsored at the last exposition by the Residential Section. Space is reserved to permit its resale for the exhibition of typical gas heating units by 15 or 20 manufacturers with a central exhibition and decoration financed by the American Gas Association. A part of the cost of this exhibit is borne by the local gas companies in the territory where the exposition is held.

Conclusion

I have endeavored to summarize in the briefest possible manner the plans of each of the Residential Section committees for the coming year, so that you can consider the extent to which they are responsive to the present needs of the industry. The program for each committee has been very carefully worked out and adopted with the full realization that some changes may be necessary during the course of the year, which we cannot foresee at the present time.

The Residential Section will welcome your comments and criticism of the program, and most of all we welcome your final approval of this program as an indication that it will enjoy the full support of your company as soon as it is put into operation on October 1, 1941.

Gas Equipment Scores at Home Show

With an attendance of more than 100,000 people, the annual Home Show in Indianapolis was represented by more gas equipment than ever before. The picture above shows part of this equipment and the platform where continuous cooking demonstrations were held. Even the stately 1941 model home at the show was all gas this year

Water Heating Sales Survey Completed

W. L. HUTCHESON, chairman of the 1940 A. G. A. Water Heating Committee, recently announced that the results of a survey of gas water heating promotional methods had been compiled by the committee and made available to the gas industry. The study covers the methods of 15 companies of various sizes and locations who accomplished outstanding water heating selling jobs in 1939.

The material has been condensed into semi-tabular form for easy reference and comparison in a 16 page illustrated pamphlet which is available at American Gas Association headquarters for 35¢ a copy, F.O.B. New York. The individual reports of the 15 companies are supplemented by a composite report covering the group.

Members of the American Gas Association Refrigeration Committee at the Evansville Country Club where the group met for luncheon during business meetings held at the Servel plant. Left to right: H. C. Porter, R. J. Canniff, C. S. Stackpole, Charles Davis, C. B. Wilson, Louis Ruthenburg, president, Servel, Inc.; O. J. Haagen, B. T. Franck, chairman, A. J. Maloney, George S. Jones, J. L. Johnson, F. H. Trembly, W. S. Redpath, Frank Williams, and C. V. Sorenson

New Gas Range Manual

A NEW edition of the Gas Range Service Manual is now ready for distribution. This new manual covers adjusting, installing, and servicing instructions for all types of domestic gas ranges including the controls used on latest models of fully automatic ranges, CP ranges, etc. It replaces earlier editions which are now considered obsolete.

The Fourth Edition of the Gas Range Service Manual is not a reprinting but an entirely new book which your service men need. The price, in spite of considerable increase in size of the book, is still $1.00 per copy.

Orders may be sent to American Gas Association, 420 Lexington Avenue, New York, N. Y.

Gas Refrigeration Market Shown in Survey

COOPERATION in the country's defense program in every way possible by maintenance of consumer business was agreed upon by the members of the A. G. A. Refrigeration Committee meeting in Evansville, Ind., as guests of Servel, Inc. The meeting was held June 20 with B. T. Franck, chairman of the committee and vice-president of the Milwaukee (Wis.) Gas Light Co., presiding.

A high light of the meeting was the presentation of the results of a survey conducted by W. C. Wolff, of the Brooklyn (N. Y.) Union Gas Co., and chairman of the subcommittee on replacement sales showing increased sales opportunities in the apartment house and replacement markets.

Mr. Wolff's survey, conducted by him among leading gas utilities in the country, showed there is a wide potential market opening up for gas refrigeration particularly in those areas where extensive remodeling of old apartment house or new multiple housing programs are being carried on. It was also shown that among people replacing out-moded automatic refrigerators a great number favored the gas refrigerator for their next refrigerator. The results of the survey have been made available to the gas industry in portfolio form.

Plans for next year's Committee sponsored gas refrigeration campaign were discussed. Arrangements for the "Servel Annual Best Performance Award" honor trip to Miami-Nassau-Havana were also discussed.

A luncheon was held for the committee at the Evansville Country Club.

Working model kitchen which was featured at the annual Southern California Home Show held at the Pan Pacific Auditorium in Los Angeles in June. Gas exhibitors took 4,000 square feet of space for the display of modern domestic gas appliances. It is estimated that in excess of 100,000 people attended the five-day show

Connecticut Utility Wins First Aid Contest

IN a state-wide first aid contest, designed to stimulate interest in civilian defense training, the Northern Division team of The Connecticut Light and Power Company won first place in the industrial division and tied for first place in all divisions with a Connecticut State Police team at the Connecticut Conference on First Aid and Safety, sponsored by the Connecticut Chamber of Commerce at the University of Connecticut, June 14.

Members of the C. L. & P. team were: Matthew Patterson, Robert Magliora, Stanley Radziewski, John McGuire and Foster Lees. Lees was a substitute for Lester Rundlette who was unable to compete. This team was trained by William V. Jones, a member of the Power Company Welfare Department, who also trained four other Company teams in the competition.

Industrial & Commercial Gas SECTION

H. Carl Wolf, *Chairman*
George F. B. Owens, *Vice-Chairman*
E. D. Milener, *Secretary*

National Defense Takes Precedence in Industrial and Commercial Gas Program for 1942

By H. Carl Wolf*

Chairman, Industrial and Commercial Gas Section

THE program of the Industrial and Commercial Gas Section for the Association year 1942 has been developed after thorough consideration by the Managing Committee and the officers of the Section. In developing this program, two problems presented themselves. To what extent should we concentrate on the use of gas in national defense and what phases of non-defense activities should be emphasized. It was the unanimous decision of the Managing Committee that the use of gas in national defense should receive first call on all Sectional activities, and that the non-defense fields should be covered as far as this situation allows.

To Concentrate on "Defense" Gas

In view of the importance at this time of industrial gas in the defense effort, the Managing Committee itself and the Advisory Committee of Past Chairmen will take over the work of the present General Sales Committee and will concentrate on defense gas. This will bring the best available personnel to work on these problems and specialized phases will be assigned by this top group to the other committees of the Section for more detailed study. For instance, defense matters specifically concerned with the metallurgical applications of gas will be handled by the Metal Treating and Melting Committee and those related to quantity cooking in camps, bases, etc., will be handled by the Food Service Equipment Committee. Other committees will receive similarly suitable assignments.

Non-defense activities will be covered by committee work in the order of their importance. It is, of course, impossible for the Section to organize committees on all of the industrial and commercial uses of gas. There are many specialized applications that are quite important and which represent considerable business, but which are not widespread enough to be of interest to more than a limited number of our members. Many of these subjects will be treated in convention and conference papers, prepared by individuals, instead of by committee reports.

The entire program is based on sales promotion and better utilization of gas in business and industry. Progress in utilization has been very rapid recently and will continue to increase, particularly under the impetus of the defense movement. During the current year closer cooperation with the manufacturers of industrial and commercial gas equipment has been established by the Section, but the situation still exists whereby the Association of Gas Appliance and Equipment Manufacturers does not carry on promotional activities in the non-residential field. The entire burden, therefore, rests on the Industrial and Commercial Gas Section. It is expected that this situation will be improved during the coming year.

The accompanying summary of the Industrial and Commercial Gas Section's program for the Association year 1941-1942 was presented at a meeting of the A. G. A. Sales Council in Cleveland, May 21.

For the 1942 Association year, the Section's program, to be carried out by the officers and Managing Committee, under authority of the Executive Board, is as follows:

Committees

Managing
Advisory
Nominations
Program
National Industrial Advertising
Advisory Committee on Publicity
Displays at National Industrial Expositions
Use of Gas in National Defense
Gas Engine Power
Metal Treating and Melting
Food Service Equipment
Industrial and Commercial Space Heating
Volume Water Heating
Commercial Refrigeration
Summer Air Conditioning
(Joint Committee with Residential Section)

The business of these committees is as follows:

The Managing Committee will direct and review the activities of the Section and, together with the Advisory Committee of Past Chairmen, will concentrate on problems that concern the use of gas in National Defense.

The Committee on Nominations will canvass the Section's membership and nominate officers for the ensuing Association year.

Preparation of programs for the Industrial and Commercial Gas Sessions, Luncheon, etc., at the Annual Convention, the Natural Gas Convention, the Industrial Gas Sales Conference, and the Hotel, Restaurant and Commercial Sales Conference will be handled by the Program Committee. The Managing Committee has authorized the officers of the Section to select the cities where the two sales conferences will be held. Papers presented at the conventions and conferences are distributed to gas companies, equipment manufacturers, individual members of the Section and others.

Industrial Gas Advertising

The National Industrial and Commercial Advertising Committee of the Section, operating in conjunction with the Association's Committee on National Advertising, will continue to plan and supervise the industrial and commercial gas portions of the national advertising campaign. In conjunction with the advertising agency the committee will make continual studies regarding regular and specialized types of magazine advertising suitable for telling the industry's story in selected magazines. The expenses of this committee's activities are provided by the national advertising fund.

Publicity activities will continue to embrace the preparation and placing with leading trade, business and technical magazines in important customer classifications various articles, reports, illustrations, etc., of a descriptive, technical and promotional nature. This work will be supplemented by distribution of reprints, reports, etc., to interested groups within our industry. The interchange of gas company direct mail advertising and publicity material published by companies represented on the Managing and Advisory Committees will be continued. The industrial and commercial publicity work is handled by a full-time staff writer.

* President, Atlanta Gas Light Company, Atlanta, Ga.

It is planned to continue cooperative displays and exhibits in national industrial and commercial expositions conducted by our more important customer groups. The outstanding success of the gas exhibits at such expositions as the National Metal Exposition, the National Hotel Exposition, the National Restaurant Exposition and the National Exposition of Power and Mechanical Engineering have made these cooperative gas displays and exhibits important features of these expositions, and valuable sales and promotional aids to gas companies and equipment manufacturers. These displays are planned and conducted under the supervision of the Committee on Displays at National Industrial Expositions.

The general features of the widespread extensive uses of industrial and commercial gas for national defense will be studied and reported on by the Committee on Use of Gas in National Defense. Part of this committee's duties will be the preparation and distribution of technical and semi-technical service letters on different phases of the use of gas in national defense.

The Gas Engine Power Committee will again prepare and publish the annual A. G. A. Census of Gas Engines. This census, now in its fifth year, includes very complete data on the number, size and type of engines connected to the lines of natural gas companies and in addition includes data on engine manufacturer companies' shipments of the various types of engines. This is the only data of its kind published.

The Gas Engine Power Committee will also conduct investigations on sales methods and maintenance procedures, as well as certain technical studies. Of the latter, outstanding studies will include high temperature engine cooling and waste heat recovery methods.

The Metal Treating and Melting Committee will continue as before its investigations into problems in this important field, and will confine all of its activities to metal treating in national defense industries. The work will include both the ferrous and nonferrous fields.

Food Service Equipment

Many changes are taking place in the Food Service Equipment field, and these changes affect gas as well as competitive fuels. The big over-all trend in quantity cookery has been the gradual substitution of specialized apparatus built for specialized cooking and baking instead of depending on heavy-duty ranges and broilers for practically all operations. This has brought forth a vast number of special devices such as grills, deep fat fryers, coffee brewers, dry steam tables, etc. The bugs have been gotten out of most of these new appliances in the last few years, and we now have the most complete line of modern, attractive and efficient commercial gas equipment we have every had. The Food Service Equipment Committee will work on problems presented by these trends and changes, and will continue to gather, analyze and distribute data on successful sales methods in this field.

Sales and technical subjects in the large and growing field of industrial and commercial space heating will be studied by the Committee on Industrial and Commercial Space Heating. Emphasis will be placed on space heating of buildings erected or altered for national defense production.

Volume Water Heating

The Volume Water Heating Committee will complete its thorough investigation of the possibilities of gas-heated water in mechanical dish, glass and silverware washers of both the batch and continuous types. The use of this apparatus in food service establishments is rapidly growing and, besides the normal problems that have arisen, are those created by new and stricter sanitation laws and regulations. This committee has been a leader in the 180° water movement for sanitation and sterilization and it intends to maintain that leadership. Upon completion of the work on dishwashers, the committee will concentrate on another specific problem, rather than attempt to generalize in the rather broad field of hot water in business and industry.

The Commercial Refrigeration Committee will conduct promotional work in this field within the limitations of the supply of machines and the sales policies of the manufacturer.

The Joint Committee on Summer Air Conditioning in cooperation with the Residential Section will continue to supervise the summer air conditioning research proj-

Industrial Gas Exhibit Is Magnet at Western Metal Congress

Partial view of gas exhibit at the Western Metal Exposition

IT would be surprising, in view of the present all absorbing defense effort and the part that metals are playing in it, if the annual Western Metal Exposition and Congress, held this year in the Pan-Pacific Auditorium in Los Angeles, May 19-23, had not been one of the best attended and most successful ever staged. Total attendance at the five-day exposition was 39,212, which exceeded by a substantial margin the attendance at the last western metal exposition held in Los Angeles. All available exhibit space was occupied, and 178 exhibitors participated. More than 6000 of the leading engineers from over the country attended the various technical sessions.

The technical sessions, naturally, were concerned almost exclusively with the metal industries cooperation in the national defense program. Contributions by engineers and technical men were exceptionally fine and many were recognized as of outstanding value to the metal industry.

Gas industry participation, as in past shows, was a prominent feature of the exposition. Space was provided jointly by the Industrial and Commercial Gas Section of the *American Gas Association*, the *Pacific Coast Gas Association*, the Natural Gas Bureau, and Southern California and Southern Counties Gas companies. This was allotted to leading firms manufacturing, distributing and selling gas metal melting and heat treating equipment and air conditioning appliances in the West for the display of their wares. The importance of gas in metal treating was demonstrated prominently and dramatically and the combined industrial gas exhibit attracted its full share of attention throughout the period of the Exposition.

E. M. de Remer, Frank Weiss, and Otto C. Mauthe of the Southern California Gas Co. and Charles L. Ferry of Southern Counties Gas Co., made the arrangements and were in charge of the display.

ect at the A. G. A. Testing Laboratories, and will act as the working group of the General Committee of Executives on Summer Air Conditioning. Apparatus, markets, competition and sales methods will receive the committee's attention.

Service Letters—concentrating on subjects pertaining to the use of gas in national defense—will be issued for the information and use of our members from time to time, and it is expected that the Commercial Cooking Handbook will be completed and published during the year. Special subjects will be handled as they come up, or as directed by the Managing Committee. Contact work with our members and with organizations that represent different classes of our customers is included in the program. Committee reports, bulletins, copies of convention and conference papers, engineering and sales data will be published through the year, and distributed.

The broad scope of industrial and commercial gas, with its many specialized and widely divergent classifications, and the literally thousands of different pieces of equipment being manufactured and being engineered into specific installations, makes the work of the Section complicated. The Managing Committee believes, however, that the above program is a complete one and will cover the matters of most importance.

The incoming officers have selected most of the chairmen for the several committees, and membership for the committees will be selected in consultation with these chairmen. It is earnestly requested that each company allow any men in its organization who might be invited to serve on a committee to do so, and to support him in his work during the year. The Section pledges that the number of meetings will be kept to a minimum, and welcomes volunteers from all companies to work on any of the committees.

Inspection Trips Feature Mid-West Industrial Gas Meeting

UPWARD of 70 industrial gas engineers and associates of the Mid-West, including eight states and Canada, took part in a two-day meeting of the Mid-West Industrial Gas Sales Council at Rock Island, Ill., in May. With George L. Ballard, chairman of the council, presiding, the meeting focussed attention on the part gas is playing in the increased industrial tempo of the nation.

James J. Offutt, ceramic engineer, A. P. Green Firebrick Co., Mexico, Mo., opened the meeting with a valuable paper on "Selecting Refractories for Gas-Fired Industrial Furnaces." His talk was supplemented by a moving picture in technicolor entitled "Behind the Firing Line." R. J. Cowan, metallurgist, Surface Combustion Corp., presented an able paper on "Furnace Design and Utilization" which dovetailed with Mr. Offutt's presentation.

Following a luncheon meeting at the Fort Armstrong Hotel, a detailed study of the "Development of Straight Line Curves for Straight Forward Solution of Industrial Gas Burning Problems" was presented by Slade B. Gamble, National Machine Works, Chicago. Actual operations of flame hardening being performed on various pieces were shown in a movie "Flame Hardening with Gas" which was presented in conjunction with a talk by Jack A. Smith, Selas Company, Chicago. The first day's session concluded with a talk by Gordon William, metallurgist, Deere and Co.

At a dinner meeting that evening, with George Uhlmeyer as toastmaster and Robert Lind as co-host, the following speakers were introduced. Brig. Gen. Norman S. Ramsey, commandant of Rock Island Arsenal; R. B. McDonald, president, Peoples Power Co., Rock Island; Hyman Bornstein, chief metallurgist, Deere and Co.; James Allen, International Harvester Co., Chicago; and Leonard J. Applequist, past State Commander of the American Legion.

Speakers at the banquet of the Mid-West council. Left to right, standing: George L. Ballard, chairman, R. B. MacDonald, H. Bornstein, and James Allen. Seated: G. A. Uhlmeyer, L. J. Applequist, and Brig. Gen. Norman F. Ramsey

General Ramsey told of the contribution of gas fuel to the production in all departments at the arsenal and commended the American Gas Association for making scientific surveys which enabled government and industry to adopt gas to modern industrial needs, especially in the vital national defense program.

The second day's session was devoted to a series of inspection trips beginning with the Rock Island Arsenal where the latest U. S. Army tanks and anti-tank guns were viewed. After seeing the arsenal, the delegates visited the Farmall Works of the International Harvester Company where gas performs many jobs.

Dividing into two groups during the afternoon, one visited the plow works of the John Deere Company at Moline while the other inspected the harvester works of the same company in East Moline. Both groups saw many interesting examples of the practical application of gas to large scale manufacturing. A side trip was made by several engineers through the Rock Island Metal Foundry.

"Friendly Neighbors," Portland (Ore.) Gas & Coke Company's up-to-the-minute gas window display, does a powerful public relations job—both locally and pan-American-wise—by tying up the customer's use of gas with the product—gas-roasted Golden West brand coffee. An ever-growing number of gas companies are utilizing this effective method of cooperating with their customers while promoting the use of gas in industry and commerce

Samuel H. Corson Dies

SAMUEL H. CORSON, office manager of the Main Line Division, Philadelphia Electric Company, died suddenly at his home on May 11. He was 54 years old.

A pioneer in the establishment of utility service in the area where he spent his last few years, Mr. Corson had completed more than 35 years of continuous employment with the Philadelphia company. He was a member of the American Gas Association.

Copy-cat idea for manufacturers of gas fat fryers and broilers. "Why not," writes C. G. S., "rate gas quantity cookery appliances in terms of the food they will cook properly per hour—rather than in pounds of fat or inches of grille space? It'll mean more to the customer, as some of our good competitors are already demonstrating."

♦

Just 10 years ago the first paper on gas summer air conditioning was presented. Considering that the art started from scratch, it has taken less time to "get under weigh" than other major gas utilization developments we could mention.

♦

"Applause and encore" to Surface Combustion for combining into a single and distinctly newsworthy heat treating furnace, three great ideas—radiant-tube heating, Char-mo atmosphere, and rotary-hearth mechanics. Developed for a Cleveland gear maker, the unit already has been ordered in triplicate by a Detroit automobile producer. Such a brand of "quality" improvement in gas equipment in the midst of today's war-fever, deserves more than one encore.

♦

Your correspondent has taken the title of this column seriously—decided that "Going Ahead with Industrial Gas" is a good idea—has "gone ahead" to a new job in industrial gas with The Selas Company (as of July first). So, fellas, thanks for your ears. We hope you will continue to tune in on this wave length.

'S about time we let the manufacturers know we appreciate the selling job they're doing for us (purely unselfishly, of course) in the advertising pages of the trade press. F'instance, take a recent copy of INSTITUTIONS—ten ads for modern gas quantity cookery in one issue—S.G.E., Lion Specialties, Blodgett, Masterchef, Anetsberger, Peerless, Roberstshaw, Pitman, Glass Coffee Brewer, and Ershler & Krukin.

♦

Study for Selling: "The Heating of Billets for Shell Forging," W. Trinks, INDUSTRIAL HEATING, December, pp. 1155-62; "Case Hardening," John F. Wyzalek, HEAT TREATING & FORGING, May, pp. 237-40; "Improved Radiant-Tube Strip Annealing Furnace," STEEL, April 14, 66-9; "Air Conditioning for Air Defense," Harold S. Birkett, HEATING & VENTILATING, April, pp. 15-9; "Heat Treating Aircraft Tubing," H. R. Lewis, THE IRON AGE, April 3, pp. 43.

♦

There's one born every year—we mean those cartoon characters used in gas advertising to personify our product. The 1941 contribution is Brooklyn Union's "Handy Heat," shown herewith. So far we've spotted him on billboard, and in direct-by-mail in behalf of industrial water heating and quantity cookery. We commend the direct-mail as better than average—we reserve judgment on "Handy Heat" ('til he's off the bottle anyway).

♦

The Volume Water Heating Committee has been saying it, you've been saying it, public health officers have been saying it, and the dishwasher people have been saying it—but now, at last, the restaurant folks themselves are saying it to each other. We quote from the April AMERICAN RESTAURANT on "How to Get the Most Out of Your Dishwasher" (p. 72): "For the greatest possible degree of sterilization, rinse water should be maintained at a temperature of 180 degrees F. or over."

♦

100% in Northern California. Writes Joe Gumz, Pacific Gas and Electric, "We can be justly proud of the way natural gas in our territory is aiding the Defense Program. Every new military camp or air base in our area where gas is available is completely supplied, and, in addition, practically all of the fuel requirements of the several new shipyards are being taken care of with natural gas."

♦

The first two color add ever to appear in INSTITUTIONS is by Garland. INSTITUTIONS has the largest circulation in the food service field.

INDUSTRIAL AND COMMERCIAL NATIONAL ADVERTISING FOR AUGUST

The National Advertising Committee of the Industrial and Commercial Gas Section, J. P. Leinroth, chairman, and F. B. Jones, vice-chairman, announces that full-page advertisements will appear in the trade and business magazines listed below during the month of August. These advertisements, which will appear in 16 publications reaching a total audience of 288,587, are prepared in co-operation with the Committee on National Advertising as a part of the Association's national advertising campaign.

General Manufacturing

BUSINESS WEEK (August 23—⅔ page ad)—Let today's high speed Gas equipment help step-up your production.

Ceramic Industry

CERAMIC INDUSTRY—Good! We've cut down on rejects. I knew that modern Gas equipment would do the trick.

Food Industry

FOOD INDUSTRIES—Yes Sir, it *PAYS* to use Gas for all Heat Processing of Foods.

BAKERS HELPER (Aug. 16)
BAKERS WEEKLY (Aug. 30)—Here's *one* Insurance Policy that doesn't call for premiums! Modern Gas equipment is your insurance of speed, flexibility, close control and economy.

Metals Industry

THE IRON AGE (Aug. 14)
STEEL (Aug. 11)
METALS & ALLOYS
METAL PROGRESS
INDUSTRIAL HEATING—Good! We've cut down on rejects. I knew that modern Gas equipment would do the trick.

Hotel and Restaurant Field

HOTEL MANAGEMENT—The decorations may bring them in. . . but it's the chef who brings them back—and chefs *know* how important *modern Gas equipment* is in maintaining food quality.

AMERICAN RESTAURANT—I *must* have better food and less waste! With *Gas* alone we have close control, speed, clean heat and economy.

CHAIN STORE AGE (Fountain and Restaurant Section)—Yes Sir, it *pays* to use Gas for Counter Cooking.

Processing Field

CHEMICAL AND METALLURGICAL ENGINEERING—Good! We've cut down on rejects. I knew that modern Gas equipment would do the trick.

Technical SECTION

D. P. HARTSON, *Chairman*
HAROLD L. GADBY, *Vice-Chairman*
A. GORDON KING, *Secretary*

Bibliography on National Defense and Air Raid Precautions for Public Utilities

Compiled by LUIS HILT, *Librarian, American Gas Association*

With the Assistance of Josephine I. Greenwood, Librarian, Consolidated Edison Co. of New York, Inc.; Alma C. Mitchill, Librarian, Public Service Electric & Gas Co.

Air Raid Precautions

Items indicated by a † are references available at A. G. A. Headquarters, 420 Lexington Ave., N. Y., which may be copied at cost—25¢ per photostatic page. Items selected as having specific application, as contrasted with those of a more general nature, have been marked with an *.

The following journal titles are those of British publications: *BCGA Gas Bulletin, Chemistry and Industry, Economist, Electrical Review, Electrician, Engineer, Engineering, Gas Journal, Gas Times, Gas World, Institution of Gas Engineers Transactions.*

GAS INDUSTRY REFERENCES

†*Air raid damage and how it affects the gas industry—D. L. Dickson—Gas Times, December 14, 1940: 20-22; Same. Gas World, December 21, 1940: 258-9; American Gas Journal, February 1941: 33-5.

†*Air raid precautions (From presidential address of Thomas Reynolds)—Gas Journal, April 3, 1940: 36.

†Air raid precautions (From annual report of the Council)—Institution of Gas Engineers Trans. 1938-39: 887-8. As follows:

"The Institution, through its Joint Lighting Committee and its Gas Works Safety Rules Committee, has continued to keep in touch with the appropriate Government Departments in regard to technical matters concerning Air Raid Precautions by Gas Undertakings.

"On 30th September, 1938, in view of the existing tension in international relations, memoranda relating to 'An Experimental Installation of War-Time Lighting at Gas Works' and 'A Method of Extinguishing Fires in Gas Mains' were circulated by the Institution to all Gas Undertakings in Great Britain."

†Air raid precautions (From first report of Technical Committee—Communication 234)—Institution of Gas Engineers Trans. 1939-40. As follows:

"The committee has continued to review matters pertaining to Air Raid Precautions in particular relation to pipes and gas distribution systems. Attention is drawn to a booklet entitled *'Notes on Town Gas for Air Raid Wardens,' originally prepared by the London Regional Gas Centre, and subsequently revised and reprinted by The Institution of Gas Engineers (Publication No. 227), and to a confidential memorandum on certain effects of air raid damage to gas mains in the London region, submitted by the London Regional Gas Centre and circulated by the Institution to all Gas Undertakings." Same. Gas Journal, December 18, 1940: 510.

†Air raid precautions and lighting—T. Wilkie—Gas Journal, September 7, 1938: 599, 601-3; Discussion. September 14, 1938: 679, 681.

†*A.R.P. and the gas industry; experimental black-out—F. C. Sheriff—Gas Journal, February 2, 1938: 309-12.

†*A.R.P. and the gas industry; protection of gas works from bombs and the public from escaping gas—J. Mitchell—Gas Journal, March 16, 1938: 797-8.

†Air raid precautions as applied to coke ovens—Gas World, August 5, 1939: 101-4.

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†*Authentic information principally based on questions prepared by the National Technological Civil Protection Committee; additional information on protection of city

- Since the present War started, committees of the Technical Section of the American Gas Association and some of our members have been noting, and reviewing where possible, information relating to its effect upon the gas companies and other utilities in the affected areas.
- The natural result is a bibliography and by means of information furnished from a great variety of sources the Association's librarian has prepared this selected bibliography for the information of the industry.
- Another is in course of preparation and will deal with utilization and some of the more general matters relating to national defense not now included within the scope of air raid precautions.

Dorr P. Hartson
Chairman, Technical Section

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†Heating of air-raid shelters—Gas Journal, November 6, 1940: 249-50.

†It does happen (Editorial)—Gas Journal, September 4, 1940: 403; Same. American Gas Journal, October, 1940: 40.

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†*Measures for air raid protection for gas and water distribution systems of cities. Luftschutz—massnahmen für die gas und wasserverteilungsnetze der städte—Eugen Landel—Gas und Wasserfach, July 30, 1938: 566-8 (Germany).

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†No gas explosion (holder hit)—Gas Times, August 3, 1940: 9.

†*Notes on town gas for air raid wardens—Institution of Gas Engineers—Publication 227—November, 1940—7 pp.

†*Preparing and furnishing air raid protection in gas works and coke oven plants. Aufbau und ausgestaltung des werkluftschutzes in gaswerken und kokereien—R. Mezger and W. Schairer—Gas und Wasserfach, April 17, 1937: 248-56 (Germany).

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†*Repairing holder damage—Gas Journal, September, 1940: 531 (Short ill. item).

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†Special lacquers for light suppression—Gas Journal, September 13, 1939: 602 (Short item).

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†*Use of grease for emergency shut-off of small low-pressure mains—R. C. Holcombe—Gas Age, June 19, 1941: 15, 34-5. —See also—American Gas Association MONTHLY, July-August, 1941: H. B. Andersen.

†War and the gas plant—A. M. Salisbury—Gas Age, December 5, 1940: 17-18.

†War makes a difference in British gas tanks (Short item)—Public Utility Fort., March 13, 1941: 336.

†Warming and ventilating plant for air-raid shelters—Gas Journal, December 4, 1940: 419.

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Working under emergency conditions—Gas World, January 13, 1940: 16-18.

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It should be noted that a selection of certain of the following items, indicated by a ¶, are available in sets at $2.50, at The British Library of Information, 620 Fifth Ave., N. Y.

†Civil Defence Act, 1939—105 pp.—60¢.

†Statutory Rules and Orders, 1939, No. 920—Air raid shelters for persons working in factories, mines and commercial buildings—Revised Code (Section 13 of the Civil Defence Act, 1939)—1940—34 pp.—15¢

A R P Handbooks—

¶No. 1—Personal protection against gas—15¢.

¶No. 2—First aid and nursing for gas casualties—10¢.

¶No. 3—Medical treatment of gas casualties—15¢.

¶No. 4—Decontamination of materials—15¢.

¶No. 4A—Decontamination of clothing, including oilskin anti-gas clothing and equipment, from blister gases—10¢.

†¶No. 5—Structural defence—1939—58 pp.—60¢.

†¶No. 5A—Bomb-resisting shelters—1939—10 pp.—15¢.

†No. 9—Incendiary bombs and fire precautions—1940—59 pp.—15¢.

†¶No. 10—Training and work of first aid parties—1939—52 pp.—15¢.

†¶No. 11—Camouflage of large installations—1939—15 pp.—10¢.

¶No. 12—Air raid precautions for animals—10¢.

A R P Memoranda—

†¶No. 1—Organisation of air raid casualties services—1939—32 pp.—15¢.

†¶No. 2—Rescue parties and clearance of debris—1939—10 pp.—5¢.

†¶No. 3—Organisation of decontamination services—5¢.

†¶No. 4—Organisation of the aid raid wardens' services—1939—19 pp.—5¢.

†¶No. 6—Local communications and reporting of air raid damage—1939—49 pp.—15¢.

†No. 7—Personnel requirements for air raid general and fire precautions services,

and the police service—1938—11 pp.—5¢.

†No. 9—Notes on training and exercises—1939—11 pp.—5¢.

†No. 11—Gas detection and identification service—1939—12 pp.—10¢.

†¶No. 12—Protection of windows in commercial and industrial buildings—1940—36 pp.—10¢.

†Care and custody of equipment—1940—48 pp.

†¶No. 13—Inspection and repair of respirators and oilskin clothing—5¢.

¶No. 14—Domestic surface shelters—10¢.

*†No. C 1—Air raid precautions for gas undertakings—1938—35 pp.—15¢.

*†No. C 2—Air raid precautions for electricity undertakings—1938—33 pp.—15¢.

*†No. C 3—Air raid precautions for water undertakings—1936—26 pp.—15¢.

(Note: The last three of the above Memoranda may only be secured by writing to the Ministry of Home Security, Whitehall, London.)

A R P Pamphlets—

†Training of air raid wardens—1939—11 pp.—5¢.

†War-time lighting restrictions; lights carried by road vehicles—1939—7 pp.—5¢.

†¶Your home as an air raid shelter—1940—24 pp.—10¢.

¶Air raids; what you must know; what you must do—10¢.

¶Anti-gas protection of babies and young children—5¢.

Training Manuals—

¶No. 1—Basic training in air raid precautions—15¢.

¶No. 2—Manual for officers responsible for A R P training—15¢.

†Air raid precautions; in ten parts (book)—Reprinted by permission of the Controller of His Britannic Majesty's Stationery Office—first American edition 1941—Chemical Publ. Co. Inc., Brooklyn, N. Y.—296 pp.—$3.00. (Note: This book includes Handbook No. 5, and Memoranda Nos. 2, 3, 4, 6, 9, 11, 12, 13 and "Care and custody of equipment.")

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Liquefied Petroleum Gases Continue Sharp Upward Trend in 1940

THE rapidly growing interest in liquefied petroleum gases, stimulated by their numerous uses as fuels, is evidenced in a 40 per cent gain in sales in 1940, when deliveries increased to 313,456,000 gallons compared with 223,580,000 in 1939, according to the Bureau of Mines, United States Department of the Interior. The expansion of approximately 90 million gallons in sales during 1940 is remarkable, when it is observed that this increment is nearly equal to the total requirements in 1936 and that the volume of the marketed production of liquefied petroleum gases has about trebled in 4 years.

All principal uses of liquefied petroleum gases made important gains in 1940 compared with requirements in 1939. Sales for domestic consumption or in the "bottled-gas" trade increased by 53 per cent., while gas-manufacturing companies purchased 31 per cent more liquefied petroleum gases in 1940 than in 1939 for mixture with their manufactured gas and for direct distribution through their lines to consumers.

Deliveries of liquefied petroleum gases for consumption as an industrial fuel, which made an outstanding gain of 59 per cent in 1939 in contrast to a loss in 1938, increased only 12 per cent in 1940 over 1939—the lowest rate of expansion for the several principal uses.

Manufacturers of chemicals, who bought smaller quantities of liquefied petroleum gases in 1939 than in 1938 (due partly to overstocking in the latter year) purchased 29 per cent more of these gases in 1940 than in the preceding year. The rapidly increasing use of liquefied petroleum gases as a fuel for internal-combustion engines is indicated by the 81 per cent gain in sales for this purpose in 1940 compared with 1939.

Exports of liquefied petroleum gases by the producers totaled 1,616,000 gallons in 1940—a 3 per cent gain over the 1939 quantity of 1,570,000 gallons. Domestic and export sales of liquefied petroleum gases totaled 315,072,000 gallons in 1940, or 40 per cent over corresponding deliveries of 225,150,000 in 1939.

SALES OF LIQUEFIED PETROLEUM GASES, 1934-40
(Thousands of gallons)

Year	*Butane*	*Propane*	*Butane-Propane Mixtures*	*Pentane*	*Total*
1934	25,553	18,681	10,271	1,922	56,427
1935	34,084	26,814	13,492	2,465	76,855
1936	40,200	36,502	27,375	2,575	106,652
1937	45,399	46,474	46,694	2,833	141,400
1938	52,768	54,130	56,050	2,253	165,201
1939	71,351	79,323	69,020	3,886	223,580
1940[1]	77,056	109,216	123,348	3,836	313,456

[1] Figures for 1940 subject to revision.

Fuel-Flue Gases Book To Be Reprinted

BECAUSE of the unprecedented demand for the handbook, Fuel-Flue Gases, published last year by the American Gas Association under the auspices of the Technical Section's Chemical Committee, it has been decided to print a new edition. The entire supply of the first edition is virtually exhausted and continued interest in this useful publication has prompted the Association to take steps to produce a new and revised edition.

Louis Shnidman, chairman of the subcommittee which directed publication of the first edition, will also be in charge of the new handbook. Mr. Shnidman has earnestly requested anyone who has noted errors of omission or commission or who has any suggestions concerning the book, to communicate promptly with him at the Rochester Gas & Electric Corporation, Rochester, N. Y. It is hoped to have all corrections by the end of August so that printing can begin immediately after Labor Day.

Laboratories

N. T. SELLMAN, *Chairman, Managing Committee*
R. M. CONNER, *Director*
W. H. VOGAN, *Supervisor, Pacific Coast Branch*

A. G. A. Executive Group Inspects Testing Laboratories' Plant

MARKING the close of the Executive Conference of the American Gas Association held in Cleveland, Ohio, on May 22-23, an informal inspection trip through the Testing Laboratories was made. More than 30 executives from various sections of the country took advantage of this occasion to inspect the expanded facilities of the Laboratories, and to observe various test procedures and current research activities under way. The accompanying photographs were taken during the course of the inspection.

Offering complete facilities for testing and research, more than 40 different types of gas appliances and their accessories are now tested at the Laboratories. Visiting executives were afforded an opportunity to inspect apparatus and procedures employed to determine their compliance with applicable American Standards. All equipment is of the most modern type, much of it being particularly designed for its purpose. Particular mention may be made of the so-called "magic eyes," a photoelectric reflectometer recently developed by the Laboratories for judging even baking characteristics. Probably the most important single item is a gas-cracking plant by which manufactured gas for test purposes is produced on the premises from natural gas locally available.

Research has played an important part in development of nationally acceptable requirements and in achievements of the Laboratories. Hence, a great deal of interest was shown by the visiting executives in current research activities, particularly in projects under supervision of the Association's Committee on Domestic Gas Research and Industrial Gas Research.

The most recent problem assigned to the Laboratories is an extensive investigation of summer gas air conditioning equipment under supervision of the Joint Committee on Summer Air Conditioning. Visitors were shown the various appliances already assembled at the Laboratories for this work, two of which were in operation. It is confidently expected that completion of this project will make available to the industry much valuable engineering and economic data on the design and application of such equipment, with a resultant increase in summer gas load.

A group of gas industry executives photographed in front of the A. G. A. Testing Laboratories' building in Cleveland. Left to right: Edward M. Borger, president, Peoples Natural Gas Co.; Wm. G. Hagan, v.p. and gen. mgr., The East Ohio Gas Co.; Marcy L. Sperry, president, Washington Gas Light Co.; Frank H. Adams, v.p. and gen. mgr., Surface Combustion Corp.; and Maj. T. J. Strickler, president, American Gas Association

New American Standards for Gas Equipment

ON May 12, final action was taken by the American Standards Association in adopting as American Standard three sets of requirements sponsored by the American Gas Association. These include standards for portable gas baking and roasting ovens, furnace temperature limit controls and fan controls, and for semi-rigid gas appliance tubing and fittings. While the last named are now in their fourth edition, those for baking ovens and temperature limit and fan controls are now available as national standards for the first time. All three sets become effective on January 1, 1942.

To permit sufficient time for interested manufacturers to construct their equipment to meet these newly adopted standards, mimeographed copies thereof have already been distributed to them. Any manufacturer so desiring may submit his products for test for conformity with their provisions in advance of the date on which they become effective. Under such conditions Certificates of Approval or Listing will be dated as of the effective date of such standards. In many instances, therefore, manufacturers will no doubt wish to take advantage of this ruling. In any event it is expected that a considerable amount of new approved equipment, heretofore not covered by the American Gas Association Testing Laboratories' program, will shortly be available to gas consumers.

Acceptance by the American Standards Association of these additional requirements brings the total number of American Standards for gas-burning appliances and their accessories sponsored by the American Gas Association to 29.

Viewing the Laboratories' equipment. Left to right: F. E. Hanson, American Radiator & Standard Sanitary Corp.; R. J. Rutherford, Worcester Gas Light Co.; B. H. Gardner, Columbia Engineering Corp.; John J. Quinn, Boston Consolidated Gas Co.; Dr. F. E. Vandaveer, A. G. A.; and Davis M. DeBard, Stone & Webster Service Corp.

Win McCarter Awards

FOR having performed an outstanding act of life saving by use of the Schafer prone pressure method of resuscitation, Humbert DeCanio, an employee of the Consolidated Edison Company of New York, Inc., recently was awarded a McCarter Medal. At the same time, Thomas F. Maher, John Duncan and Vincent M. Gotto, of the same company, were honored with awards of McCarter Certificates of Recognition.

Presentation of the awards was made on June 18 by R. A. Carter, Jr., engineer of gas production.

A Century and A Quarter of Continuous Service

125 years apart—Herbert A. Wagner, president, Consolidated Gas Electric Light & Power Co. of Baltimore, and his predecessor, William Lorman, first president of the company

MARKING the 125th anniversary of the granting of the first gas franchise in America to The Gas Light Company of Baltimore on June 19, 1816, and reviewing the ensuing century and a quarter of continuous public service, the Consolidated Gas Electric Light and Power Company of Baltimore, the descendant of the founding company, has published a brief history.

Under the original franchise which inaugurated the gas industry of America, and the charter rights subsequently granted to The Gas Light Company of Baltimore—which from time to time have been amended and extended—the Consolidated Gas Electric Light and Power Company of Baltimore operates today.

"Since the founding company began operations," the review states, "throughout the financial panics and depressions of the 125 years that have embraced the Mexican, Civil, Spanish-American and World Wars, there has never been a receivership nor a general failure of the supply of gas—not even during the great Baltimore fire in 1904."

The company of which Herbert A. Wagner is chairman of the board and president today serves gas to 237,000 customers and electricity to 302,000 customers. Its distribution systems are wholly within the State of Maryland and serve Baltimore and contiguous territory of 2,269 square miles with an estimated population of 1,178,000.

The booklet also reviews the growth of the company during the quarter-century following its Centennial in 1916.

Market Surveys

(Continued from page 269)

special rate for refrigeration, whereas 24% knew there was a special rate for gas heating. Is it possible their interest in automatic heating prompted them to look into the gas heating rate.

Many other surveys could be cited—The Brooklyn Union Gas Company—made by Elmo Roper—has received much favorable comment—and is of a type of survey we have in mind. The point being that if we want to keep up with the procession we must know our market and what our customers think about our product—service—pricing—employees—and "what have you." We can only take corrective action when we know the facts.

The committee believes that each company should earmark annually a certain part of its New Business money for appliance and fuel surveys and for qualitative analyses—certainly a thin dime per customer is little enough to spend on getting at the facts.

For want of a nail a shoe was lost; for want of a shoe the rider was lost. Let's not let it be said—that for want of a little vision the facts were lost; for want of facts an industry was lost.

BROTHER CAN YOU SPARE A DIME!

Residential Deposits

(Continued from page 275)

cedures, nor in our explanation of the reasons underlying our "right" to obtain deposits. When a customer objects to payment of a deposit, we tell him that a public utility is obliged to make available gas and electric service to all who apply, and that it is not permitted to refuse service to the applicant whose credit has not been established. To that statement he replies, "You have given me no chance to establish credit and, besides, I don't come in the general class of 'all customers.' I'm an individual—John Jones. You'll have to give me a better reason than that for asking me to leave $10 with you."

Then we tell Mr. Jones that we are not able to bill his use of service in advance, and therefore it is reasonable to require a cash deposit to guarantee the payment of bills.

The reasons we advance are sound, but is the customer interested in reasons? I wonder whether he is really willing to pay $10 for a list of reasons. We must admit that we cannot offer full value for his $10 at the time he applies for service. Instead, we offer a promise of rendering efficient service in the future. Likewise, John Jones offers us a promise of payment of bills for that service. Do we have any more fundamental reason for asking John Jones to pay $10 in advance than he has to ask us to accept his word that bills will be paid?

In other words, is it possible to foretell an uncollectible account at the time of application? The so-called "poor credit risk" at the time of application may become the best paying customer on the lines within a month. The unfortunate fact remains that those we ask for a residential deposit are the customers least able to pay it.

These questions are a part of the responsibilities of customer relations men in our industry, and they have a definite place in the review of policy. To have John Jones, the average customer, on our side, we must remember that in his own estimation John Jones considers himself a pretty good fellow, much more interested in his own welfare than in our rules and regulations.

Personnel Service

SERVICES OFFERED

Wanted: **Sales** or **production** work in a chemical concern. B.S. in Chemistry, "cum laude," Phi Beta Kappa. Experience in teaching and dealing with people of all ages. **1419.**

Technical graduate (38) registered professional engineer, desires position with utility as **industrial gas engineer**, or with manufacturer as heating and air conditioning engineer. Background includes supervision, contracting, purchasing equipment, sales, design and maintenance. 17 years' experience includes 11 in gas industry. **1420.**

As **salesmanager** salesman, purchasing agent, or factory representative. Twenty-three years' experience in practically every branch of the companies in greater New York. **1421.**

Salesman with twenty-five years' experience in stove business. Following among department, furniture, appliance stove stores, also utilities. Want complete lines gas, gas and coal combination ranges, other gas appliances. Eastern or southern territories or both. Representation, drawing against commission. Other territories entertained. **1422.**

Sales Executive, 36, college graduate with outstanding sales management record with gas utility company and management organization. Experience in training and supervising salesmen: planning and executing successful sales programs and handling large sales negotiations. Now employed. Will consider position of sales management responsibilities with gas operating utility or gas equipment manufacturer. **1423.**

SERVICES OFFERED

Chemist and Chemical Engineer, twenty years' experience in coke oven, water, producer, and natural gas; also in operation of coke, water gas, and producer plants, as chief chemist of large plant, or in chemical research. Have produced elsewhere, and can produce for you. **1424.**

Public Utility Engineer. Available due to reorganization. 15 years' experience with management company for electric, gas, and steam heating utilities includes cost-of-service allocations; rate studies; reports to Federal and State Commissions; budget forecasts of sales and revenues; load forecasts; statistical research; market surveys; and sales analysis. (37). **1425.**

Distribution engineer now employed as assistant superintendent wants better position. Experienced mostly in street department work. This includes organizing and coordinating the activities of up to 100 men engaged in maintenance, operation and construction of low and high pressure manufactured gas systems. Good technical background. Married. (34). **1426.**

Technical Graduate, eleven years' experience in manufactured gas. At present employed as superintendent of an Eastern property. Desires a change to gain more varied experience. Will be interested in employment with a utility, allied industry or a firm of consultants. (33). **1427.**

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